The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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Original Correspondence.

VENTILATION OF MINES—No. II.

Sir,—It has been repeatedly stated that a sudden outburst of gas sometimes occurs sufficient to cause an extensive and disastrous explosion, and this, too, by gentlemen whose veracity ought never to be brought into question: but the phenomenon is so unusual, and the liability so great for those who have described such occurrences to be mistaken, that it becomes necessary to receive such statements with more than ordinary caution, and to examine minutely whether they could not be safely attributed to gas being forced out of some of the old workings, or from having more workings open at one time than the air at command can efficiently ventilate. For my own part, I am fully convinced that many coal mines are designated as fiery seams that are nothing of the kind, if they were only ventilated upon proper principles. It is by far too common a practice to make extensions in a colliery without making a corresponding increase in the means of producing a current of air, and in lessening the drag or resistance, by increasing the size of the air courses, and splitting or dividing the currents of air; and, as a natural consequence, the atmosphere of the mine is nearly always at the explosive point, requiring only the slightest derangement of any of the numerous circumstances that thorough ventilation depends upon to make it so. A sad illustration of this want of principle was displayed in the case of the Risca explosion; for if having more works open than the air at command could render safe was not the primary cause of that lamentable affair, it was at least one of the main causes. The Risca explosion raised very grave doubts in the minds of many that Struvé's Ventilator did not possess those advantages over the furnace in practice which it did upon paper or in theory. And if anything more were required to show to the adherents of this system of producing a current of air that its advantages are only apparent, and not real, it most certainly has been done by the recent South Mostyn explosion; for a more signal failure of producing a constant current of air has rarely occurred, nor one that might have been attended with more disastrous results. It is somewhat refreshing to see individuals still writing in its favour, and arguing theoretically that if the machinery happened to be deranged the ventilation would be continued from natural causes. It, at the least, shows that either self-interest runs high in the writer, or that he is not to be hastily or easily changed in opinion, however strong the evidence may be in favour or a change. In support of his unnatural theory he cites cases where natural means have sufficed to keep up a good ventilation for months and years, in extensively worked mines, but the writer referred to fails to say that this can only be relied upon under certain conditions or circumstances, and that if two-thirds of the mines of this country were left to natural ventilation for only a short time, it would be, as one of our Government Inspectors of Mines truly said, "nearly tantamount to the loss of the entire colliery, or its lengthened suspension;" and he might have added the destruction of every life engaged in the mine, except saved by something little short of a miracle.

As a means of producing a current of air the furnace possesses advantages over all other systems yet known, whilst the simplicity of its application renders it beyond doubt the most simple, effective, and inexpensive system employed. I have tried the effect of steam jet and furnace combined, and can cordially recommend it where the furnace is on a shaft that is used for winding or drawing coal, as the steam to some extent neutralises the bad effect the smoke has upon those at the pit's bank, as well as increases the current of air. The producing of a current of air is far from being all that is required in the ventilation of a colliery; for it is not only possible, but frequently is the case, that a good current of air is to be found in the main air courses, but from the imperfect manner in which it is distributed many parts of the mine are very imperfectly ventilated. This is more particularly the case where due regard is not paid to working out the coal upon a proper principle, but upon a system that goes far to convert the greater part of the mine into a series of huge gasometers. When this becomes the case, it is both unwise and highly dangerous to use any light other than the safety-lamp; and it only requires a decrease of atmospheric pressure, or a fall of roof, to force the gas out of its hold, to cause an explosion if the lamp be not constantly used. It is a fact worthy of note that the majority of collieries that have been said to be subject to sudden outbursts of gas have been worked upon systems that will admit of this explanation of the phenomenon.

The main principles of ventilation are simple in the extreme in theory, and it may well startle the theorist when he sees the principles so often violated in practice. For what is easier in theory than increasing the size of the air courses to such an extent that the velocity of the air current would be so low that the drag or resistance would be almost nominal, whilst the increased size of the air courses would admit of an increased quantity of air, in the same ratio as the increase in the size or area of the air course through which the air travels? Simple as this may appear in theory, it is impossible in practice to go on increasing the size of the air courses *ad libitum*. There is a practical limit to the size of all air courses, beyond which it would be folly to attempt to go. It is hardly necessary to say that the area of the air courses must in a great measure depend upon the thickness of the seam of coal, and the strength of the stratum overlying the coal.

Much has been said upon this subject in reference to the recent explosion at the South Mostyn Colliery. One writer casts some reflections upon the management of the colliery, in consequence of the air courses not being more than 5 ft. square. If the writer referred to had had as much experience in colliery management as he appears to have in fault finding, he would have been aware that in many mines it is not practicable to have air courses so large as those he finds fault with.

Another principle, that appears to be very different in practice than in theory, is that laid down in the *Mining Journal* by a writer of some note, under the signature of "M. E." He says—"I venture to lay it down as a correct theoretical principle that the maximum velocity of air currents within a mine should be maintained only in the working faces." In answer to this theoretical principle, I will just observe that in the ventilation of all collieries there must be a main air course, through which the whole of the air that ventilates one side, division, or panel of the workings has to travel. The distance that the air travels in one current depends upon the mode of ventilating, the system of getting coal, &c. Upon the most improved principle of ventilation the air is what is technically called split, or divided, as often as practicable. These divisions of air pass by the working faces of the mine, and it frequently happens that the respective areas of the air courses that these divided currents pass through are as great as those of the main air course, through which the whole current passes before it is divided. Upon what principle then, I ask, can the velocity of the main air currents be kept below that of those which pass the working faces? With as much reason could it be laid down as a correct theoritical principle that the main gas or water pipes of our streets ought to be no larger than the service pipes. Since it is clear that the practical limits of our main air ways are no larger than the branch air ways (if I may so term them), and that the only means of having a greater quantity of air passing through the main air ways or channels is by maintaining the highest velocity of the air currents in them, I have found it difficult to keep the velocity below 20 ft. per second in the main air ways approaching a furnace, whilst it would be utterly impossible for the workmen to work in such a current of air. Many other matters in connection with the ventilation of mines differ as widely in theory and practice, hence the reason why we have so many absurd and impracticable suggestions offered.

Having so recently laid down what I conceive to be the principles of good ventilation, and the means of preventing such awful occurrences as the Risca and other explosions, both in a pamphlet and in the columns of the Journal, I shall content myself with making a few general observations on those branches of ventilation that I have either altogether missed or only briefly touched upon. Perhaps there is no single circumstance connected with ventilation of collieries that has been productive of greater loss of life than that of having an insufficient number of shafts. I admit it is expensive to sink shafts to the depths that coal is now wrought in many parts of the kingdom, but I do not admit that as a valid excuse for due protection not being afforded to the miner. Three of the most disastrous explosions that have occurred for a long time have had this for a primary cause; and after nearly 300 lives had been sacrificed, with much property, extra shafts were agreed to be sunk, at the suggestion of the Government Inspectors of Mines, to remedy the evil. It is sometimes the case that one shaft is made to serve the double purpose of upcast and downcast, by having a partition of boards running down the centre. Incredible as this may appear to those who have not received their mining training in the North of England or Scotland, it is yet practised, and the system even has its advocates.

I have not met with anyone who recommends the furnace as a ventilating agent where the shaft is lined or partitioned with wood, although it has been proved within the present year that it is sometimes practised. If there is one thing more than another that demands legislative interference it is to prevent such recklessness, and to punish the offenders. Whilst thus condemning the shortcomings of the employers and managers of mines, I do not wish to be understood as exonerating either those who hold subordinate positions or the workmen, if they be guilty of jeopardising their own and others lives by some reckless act. It is often a source of grief to me to see workmen compelled to have their power of action circumscribed to such narrow limits that they become little better than automatons, and this, too, in consequence of their inability to act for themselves, or their ignorance of those things which above all others ought to engage their attention—viz., circumstances affecting their well-being, health, and lives. But, as I have previously contended, ignorance in the workman ought not to be accepted as a palliative for ignorance and inability being found in those who are entrusted with the lives of so many of their fellow-creatures.

Jos. Goodwin.

COLLIERY VENTILATION.

Sir,—I regret the sneering tone of the remarks made by a contemporary on Mr. Goodwin's paper on this subject, read by him at a meeting of the Manchester Geological Society. His views are described as being "*nothing very new or valuable.*" I am certainly *not* one of those who think it requires anything very new to conduct a colliery in safety. I believe all the necessary principles of ventilation are well known, some by one individual, some by another; perhaps no one individual having a perfect knowledge of all the principles and details of practice constituting the *whole science of ventilation*. In support of this position, I might direct attention to the fact that one of the most able of the Inspectors of Mines stated at the meeting above referred to that he declined as yet to give a decided opinion on the comparative merits of the old furnace and mechanical motive-power. This was a manly and candid statement; and it must be apparent to any reader that he was not prepared to assert the superiority of the furnace *under all circumstances*, but quite the contrary in pits of small depth. To admit the furnace being anything but the best and simplest motive-power seems repugnant to the minds of a large number of professional men. The fact is that in this country mechanical power has not been either long or extensively tried; decidedly too little to have it brought to anything like perfect development. Many of those hitherto tried have been more like toys than useful mechanical appliances. Mechanical ventilation is at most only in its childhood ere it reaches manhood. I hope to see it developed to gigantic proportions.

The arrangements of Nixon's ventilator might be easily and cheaply improved; the defect, if any is found in it, will be in the velocity at which such large pistons may be required to travel. I would recommend the large wooden case or cylinder, with the valves and pistons, all to be duplicated, so that each stroke would produce the same effect at half the velocity. I need not repeat what I have said to make it evident that Mr. Goodwin and myself entertain slightly different views on this part of the subject. I expect great things as the result of Messrs. Atkinson and Dickinson's investigations. In the meantime, I dare to offer the opinion that with furnaces, and the proper application of known principles of ventilation, with proper arrangements of lights, that any colliery ever hitherto sunk can be worked with safety. But all persons of every official grade do not fully understand these principles, and the necessary arrangements required. Nor is this to be wondered at, for it is only within a very few years that any thing very much worth reading has been given to the public on colliery ventilation. Such very valuable and useful papers as Mr. Wood's most elaborate essay "On the Steam-Jet;" Mr. Atkinson's highly scientific essay "On Ventilation;" or the late Mr. Wales's thoroughly practical application of the details of ventilation, are but comparatively recent productions, having been only a few years at most before the public; probably we are, in addition to the gentlemen themselves, much indebted to the originators of the North of England Mining Institute for their possession at all. Before 1850 all the information published on this subject was little more than scattered fragments, bad to find and difficult to obtain. Even at the present time the *oldest truths* and simplest principles known cannot be too often repeated, were it only for the *rising generation* of colliery officials. The alphabet is no modern invention, no *new* thing, yet it is after all the initiatory step in the pathway of knowledge, and also a very important step to those taking it for the first time. I am sick of this twaddle about correct practices to ensure safety in ventilation not being new; they are not wanted to be new, they are wanted to be known more generally—universally known. If I could learn a person, hitherto ignorant of the process, how to open and shut a door, how to attend properly to a furnace, how to properly light and lock a safety-lamp, how to put up a length of air-brattice, or a danger signal, or any other equally indispensable, simple, every-day detail, I would also feel it a pleasure, and also a satisfaction, knowing I had contributed something to the general stock of knowledge of the human family. A good deal of what is necessary to the safe conducting of a mine has been done millions, and is being done thousands of times daily, but their importance is not thereby lessened—rather increased.

The value of a recommendation is its utility. Is there any one thing in ventilating a colliery of more indispensable necessity than Mr. Goodwin's *old* recommendation of keeping the air-courses open? You might with equal propriety try to pass a 12-inch pipe through a 6-inch one as try to get efficient ventilation with inadequate area of air-ways. The laws of Nature cannot be evaded or violated without retribution. Many good old practical pitmen did not believe air to be governed by laws at all—that it is so cannot be too frequently enforced. Nor can the nature and operation of these laws be too frequently or too fully explained. Whatever amount of knowledge a man possesses, if he is willing to be at trouble to himself to impart it to others for their benefit, at least he deserves our respect. The proper splitting of the air, or its proper application to every part of the mine, although not by any means a *new idea*, is justly considered one of the most important principles in mine ventilation. It is also one of the greatest discoveries and improvements that has taken place in this department during the present century; indeed, there has been nothing like it.

Are these principles universally practised throughout the coal trade of Great Britain? I fear the answer must be in the negative; and why so? I would not dare to leave undone anything I understood and found to be necessary for the safety of the workmen under my own charge, and in charity and fairness I am bound, in the absence of specific proof to the contrary, to believe that every other person similarly situated acts upon the same principle; and when we meet with cases where the simplest, oldest, and most obvious principles of ventilation have been disregarded, what conclusion must be come to? that they have not been understood. Therefore, I say, *write on Mr. Goodwin;* old or new, correct or incorrect, valuable or invaluable ideas, give them to the world. If useful, some one will gladly receive and be thankful for them. If incorrect, some one will contradict them. The subject will thus be kept alive; it is of too much importance to be allowed to die. Scores will read your remarks in the *Mining Journal* that scarcely know of the existence, or, if they do, cannot reach the other information I have alluded to. It must not for one moment be supposed that I approve of the spirit of general censure which Mr. Goodwin so fully developes. Quite the contrary. In discussing such subjects, the less said about persons, and the more about principles and practice, the better.—*Dec.* 5.

M. E.

ON THE VENTILATION OF MINES.

Sir,—I see from your excellent Journal of Nov. 30, and others, that Mr. Jos. Goodwin is interesting himself much on the subject of Ventilation of Mines,—one, however hacknied in character or theory, that is much and glaringly neglected in practice. I could point out more than one colliery the management of which betrays the qualifications of the managers and underlookers, being subversive of all proper mining regulations, and not very indicative of vigilance on the part of the Government Inspectors of Mines. The condition of one colliery, from which I was a sufferer, I will describe: the inlets and outlets for air were abundant, with furnace erected to increase ventilation. But the genius of manager and underlooker had invented no less than four ways of stopping the only main and proper air-course, compelling the whole of the air to pass through a space not more than 12 or 18 inches in area within 15 yards of the furnace, which was lighted. If their own inclination suggested it, imagine a mine surcharged with what miners call "black damp," with some two or three scores of acres of old and new workings open, and 50 or 60 men and horses depending month by month on such ventilation. Mr. J. Goodwin very frequently intimates as to the negligence, incompetence, or ignorance of managers or underlookers. Does he not know that the ignorance of three-fourths of the underlookers is proverbial, and is the cause of incompetency, negligence, and recklessness, so often complained of, but little effort made to remedy, though the mining districts groan beneath it. I am persuaded, from very recent experiments with fire-damp and other gases, that pure air is the best and only proper remedy for foul and dangerous gases, and that it can be had in sufficient quantity by any, or nearly all, the means suggested for ventilation, if the down-cast and up-cast, with the air-courses, be kept uniform and efficient, in proportion to the area and the number of men employed.

We miners look upon lamps as a most beneficial invention for indicating where danger is; but we deem them an unwarrantable abuse when made a substitute for pure air. We say that, in most mines were there is a quantity of gas given off, it is prudent and essential in certain places to lock the lamps, and to see that the miners have no means of unlocking them. But at the place where they are perpetually locked at work may I never be consigned to earn my bread. We deem it rather a strange policy for officials to be laying down rules how the miner shall manage his lamp in places full of gas, when four-fifths can neither read the rules nor efficiently the indication of the lamp. Would it not be more rational for us to lay down a rule to have such a quantity of air in each place generally as to be safe in putting away the lamp, which most men able to judge affirm can be done, and that economically, too? I propose that as a means to save money, saying nothing of saving hundreds of useful lives.

I need not intimate to inspectors and managers that air-ways may become straitened by falling or lifting at the bottom of the pit, especially the return air-ways, before they are in any way notified on the maps. Mr. Chorlton, who was so angry with Mr. Goodwin at the Manchester Geological Society, would find it difficult work to map every air-way once or twice a week in ten or twelve pits, if like some that I have seen.

Lodge-lane, Duckenfield, Cheshire, Dec. 4. Charles Bradley.

THE LYNCH COLLIERY CONTROVERSY.

Sir,—I have read in the *Mining Journal* several communications referring to the accident which occurred at the Lynch Colliery, near Llanelly. In the Journal of Nov. 30 there appears one letter headed "Responsibility of Colliery Owners and Agents," signed R. W. Perkins, and another headed "Colliery Workings—Government Inspection," and signed C. G. Bateman. From the great *cry* made by interested parties in the matter of the Lynch Colliery prosecution, I fear you and others have been imposed upon, and led to believe the law has been unfairly applied in this case, and that some great principle is involved in the question; this is not, however, the case. It is very well known in the district that the place where the accident happened was a dirty "hole," certainly not deserving the name of a colliery, and that from the bottom of this "hole" a heading was being driven seaward; and under the marshes: that *old* workings were supposed to exist in that direction, and that for some time before the accident occurred the dropping, or water in the *heading*, had been increasing, that the proprietors paid for *bore* holes to be kept in advance of this heading, but that although paid for they were not made.

The Inspector would have had no difficulty in bringing forward independent evidence to prove these things. The magistrates inflicted a small penalty only, and the general impression in the district is that the proprietors were principally to blame for not having an efficient agent, who would not only pay for bore-holes when he thought them necessary, but would also see that they were made. My main object in troubling you is to call attention to this point, as all parties having the charge of collieries cannot be too particular in actually seeing that bore-holes are kept in advance when necessary. Mr. R. W. Perkins is brother to Mr. F. H. Perkins, of the Lynch Colliery, and is a shipper of coal at Llanelly, but I am not aware of his ever having had the *management* of a colliery. Mr. C. G. Bateman, until lately, had the management of a colliery in this district, and, as a friend, aided Mr. Perkins by giving evidence before the magistrate, and these are the gentlemen who, failing to convince the magistrates, are, through the Journal, endeavouring to get up a great cry about this very little colliery, and against an Inspector for doing his duty in the mildest possible manner.

Llanelly, Dec. 4. One from the District.

BOILER EXPLOSIONS.

Sir,—I wish to assure Mr. Sims, in reply to his letter which appeared in last week's Journal, that it was with no antagonistic spirit that I replied to his communication on boiler explosions, unless expressing a difference of opinion can be construed into such, and on looking over my reply I see no reason for such an accusation. The subject of boiler explosions is far too important to be discussed in any other than a calm and impartial spirit, and it is in such a spirit that I have entered into the discussion. It is needless for me to follow Mr. Sims through his last letter, as my opinion of the value of glass water-gauges and alarm-whistles have been already expressed, and with all due difference and respect to the value Mr. Sims considers his long experience may entitle him to, it will in no way deter me from strongly recommending their application, and I confidently appeal to the managers of those mines where we have them at work as to the absurdity of my statement on the amount of care and attention required to keep them in good working order. There may be exceptional cases, and I believe they are exceptional, where the water is of such a corrosive character as to render whistles in a short time inoperative; this, however, is no reason for a general condemnation of them. But glass gauges are not only useful, even for the inexperienced to see when the feed is low, but equally so for the engineman to prevent its getting too high. With the ordinary cocks the engineman can only judge (after the water is above the top cock) how high the feed is by the length of time the feed has been going. That it does at times get too high there can be no doubt—indeed, an instance only yesterday came under my notice where the feed was so high that it was actually forced up through the safety-valve; this may be ascribed to neglect, but it arose from an excess of caution, which a glass gauge would have been the means of preventing. My reason for supposing that Mr. Sims's plan of fixing cast-iron rings in the tube would be useless is, believing that the majority of accidents arise from the water either from accident or other neglect being below the back of the tube, the tube becomes heated until it is no longer able to withstand the ordinary working pressure of steam in the boiler. I say ordinary pressure because in the accidents that have come under my notice there have not been any evidence of the ordinary working pressure being increased. That the tube must be heated to a considerable degree cannot be doubted, or it would not collapse. Now, it is well known that cast-iron does become very weak and brittle when hot, and of a very much less strength compared with wrought-iron under similar circumstances, and there being nothing to prevent these rings in the tube becoming heated to a higher temperature than the back of the tube itself, how can they assist to prevent its collapsing. If Mr. Sims thinks I am wrong in the statement I have made of the relative strength of cast and wrought-iron when hot it can be very quickly tested, and I rest assured that it will substantiate the opinion I have expessed.

J. Hocking, Jun.

Redruth, Dec. 4.

EASY WINDING CYLINDERS.

Sir,—Since winding machinery is mooted in the Journal, allow me to explain a very simple, safe, and economical mode of raising earths, &c., from mines, whether the shaft is perpendicular or hypothenular, which I have not seen working in England. Place a horizontal axle, with a drum on it, *directly* over the opening, then on the *same* axle fix another drum, as much *larger* as will equipoise similar given weights pulling opposite ways against each drum, when the loads are in equilibrium—that is, if a ton is required to be brought up 100 feet, by a band passing round a wheel 6 feet diameter. The other wheel on the *same* bearings must be made as much larger as will enable corresponding weights to slide or roll down the *outside* incline, as will *about* overcome the opposite pressure. For instance, where any locale can be worked having a corresponding fall outside, no difficulty can arise. Take, for argument, the Cricceth, Rhosydd, or other excavation from a nearly level surface area, you can furnish several hundred feet of gradual descent somewhere; then all that is required is to form an incline to the bottom of the inner workings, at an angle of (say) 50°, then form another incline, from the uppermost part towards the fall of the ground, of such an angle and length most suitable to place the debris, &c., thereby making the circumference of the respective drums to coincide with the relative force pressing on each incline, while one side is descending with its load to cause the opposite wagons to ascend with an equal load, and *vice versa* with empty wagons, then the main thing is always to keep one full and one empty wagon on the summit ready for *descending* balances, to regulate any little difference in the counterbalancing loads, the axle of the drums might be assisted by manual, horse, or other power, or the wagons themselves might be followed by men or horses to regulate any difference of weight, speed, &c. But if (say) 2 tons are required to haul up 3 tons, then the largest drum must be sufficiently great to overcome the smallest one, winding up the heaviest load along a much longer incline; hence, when one cylinder is double the diameter of the other, the speed of the longest incline must be also twice the ratio of the other, if both sides are simultaneously to be travelled over by either full or empty wagons.

December 2. G. F. Goble.

GOLD IN WALES—THE PRINCE OF WALES MINE.

Sir,—While driving along the other day on the Dolgelly road I spared a short time to inspect the Prince of Wales Gold Mine, but as the captain of the works was not at hand I contented myself by looking down into the earth below. I then walked a few hundred yards nearer the toll-gate to enter an horizontal adit, about 100 yards from which I extracted a specimen of the spar, while another piece from the perpendicular excavation I picked up where the road was being mended. These two samples I afterwards tested, the first being merely a piece of plain, light-coloured quartz, and not a trace of gold or other metal was found in it; whereas the *dark* coloured spar plainly exhibited stellates of *auriferous* galena, which on analysis gave out about 4 ozs. of pure gold to the ton of matrix, independent of the *lead* it contained. These two samples, promiscuously picked up, and others, convinced *me* there is plenty of gold in Wales, only re-

quiring competent and unprejudiced scrutinisers to develope it; at the same time, it is only wasting money to operate on stones yielding no metallic returns—as a proof, at least three-fourths of the crude stones now being broken up at the Prince of Wales Mine ought never to have been associated with the other quarter that furnishes the precious metal, for although most practical men may know tin, copper, lead ores, &c., when put into their hands, few miners, or even mineralogists, seem to know golden ores when handled. If, therefore, local managers expend twice as much ready cash than absolutely requisite, how can great profits be realised? On the other hand, while prospectors in Wales are deemed intruders, it will perhaps be unthankfully received by certain narrow-minded persons to publicly assert that there is an unproved auriferous lode close by the before-mentioned highway, and if the landowner will grant us leave the proof shall be forthcoming by the discoverer.—*Maentwrog, Dec.* 2. G. F. GOBLE.

THE INTERNAL HEAT OF THE GLOBE.

SIR,—It is very pleasing to read letters from an old traveller like Major Parlby, who has studied the operations of Nature as they are seen, and who is too independent to be induced to modify his notes to suit the theoretical fashions of the day. The concluding remarks in his communication are similar to those I made in my work on "Geology and Magnetism," chap. xix., on Volcanoes and Earthquakes:—

"These pimples of eruption would scarcely be perceptible on a globe of 3 ft. diameter and, probably with few exceptions, would not penetrate to the depth of the varnish coating."—"I have studied them, from the magnitude of the Andes to the diminutive dimensions of mole hills."—"In the district around the volcano of Tunguaraqua, in Quito, at the foot of the Paramo, the earth was rent open, and streams of water and foetid mud with fish poured out, overflowing and wasting everything."—"During several of the eruptions along the coast of Chili, since 1822, were seen great whirlpools, as if the sea was pouring into the interior of the earth."—"The volcanoes of Nicaragua during their activity are commonly attended by whirlpools. Had there been an igneous nucleus, as the one assumed, covered only by a thin crust, what would be the consequence when the sea happened to pour into it?"—"There would certainly follow some awful catastrophy, but we are happy to state no such convulsions have occurred."

The earth predominates in water as the essential element of activity in the mineral as well as in the vegetable and animal life.

It might be supposed, according to the reasoning of some professors and lecturers in natural philosophy, that this globe of ours was not originally made for the purpose of planting the vegetable and sustaining the animal kingdom, as now established. No; it was made like a fire balloon or a rocket, for the amusement of future philosophers and their disciples. We find grave professors commencing their lectures thus:—

"If a sphere of very large dimensions, like the earth, were heated in any degree and in any manner, and were left to cool in surrounding space, it is shown by accurate investigation that, after a sufficient and very great length of time, the law according to which the temperature would increase in descending beneath the earth's surface, within depths small compared with the earth's radius, would be that the increase of temperature would be proportioned to the increase of depth." And it is said that "this coincides with the observed law, if we neglect the anomalous irregular variations which are found to exist more or less in each locality."

A theory founded on such an assumption, and on so very limited and imperfect base, is not worthy of a moment's consideration.

It is said that the public in general are more pleased with romance, fiction, and anything extravagant, than with true and faithful history. This may account for the encouragement the igneous theory has received. Those, however, who prefer to study facts, and reason thereon, will find that our globe is very differently constituted, and is enveloped by the ocean over an area equal to about three-fifths of the entire surface, and to a considerable depth. The dry lands also, with their lakes and rivers, contain upwards of 50 per cent. of water, as deep as we can reach. The eruptions or volcanic emanations in New Zealand, Australia, Java, India, Phillipine Isles, China, South America, Central America, California, Iceland, &c., are aqueous products of acidulated and alkaline waters, sometimes very hot, and contain silica, potash, soda, lime, magnesia, &c., in solution. The few igneous volcanoes known are only inflamed occasionally, like the production of lightning during storms, and are comparatively as superficial in their igneous effects as the flames issuing from marshes, collieries, or gas pipes. The immense amount of heat absorbed by the earth daily from the sun's rays, the constant circulation of the magnetic currents from pole to pole, and the chemical activity produced thereby in the crystalline film of our earth, are quite sufficient to account for all terrestrial phenomena, without our having recourse to the impossibilities of the igneous doctrine.

EVAN HOPKINS.

ON THE INTERNAL HEAT OF THE EARTH.

SIR,—Mr. Hopkins states in the first paragraph of his last letter, "Although the term heat commonly implies the sensation which we experience on approaching a fire, yet heat is frequently produced without fire." I presume Mr. Hopkins means by the word *fire* the elementary principle of heat (caloric), which pervades all matter, and all space, in its various functions of heat, light, electricity, &c.; if so, perhaps, he will oblige us with his *rationale* that heat is frequently produced without the aid of *fire?* It is exceedingly unphilosophical to assume (where we have direct evidence to the contrary) that heat, light, electricity, gravitation, chemical affinity, &c., are conditions of something, which something they who hold the doctrine of the nonentity of caloric do not attempt to explain; or if they do attempt an explanation they throw around themselves, or hide themselves behind, such an impenetrable mist that they can neither find their own way out of it, nor show the way for others to emerge into clear daylight, so that they may have a broad expansive view of the surrounding objects, to see what they are like, tell what they are, and define their various functions. The union, or chemical combination (pressure), of oxygen with other elements shows merely the production of heat, light, electricity, &c., by chemical action. But *pressure*—owing to the difference in the specific heats of such bodies when under the action of increments of temperature, thus inducing considerable difference in the temperature of the bodies thus acted upon—is the main function which produces heat, &c. The bodies thus submitted to chemical action are brought into closer contact, and the caloric which they held in solution before such action is pressed outwards, thus giving rise to light, heat, &c., as explained in my letter in treating on the production of animal heat. Mr. Hopkins seems to have overlooked the circumstance that I adduced *pressure*, or, in other words, the gravitating force, as the sole agent which causes the earth's and the various heavenly bodies' heat to increase in a decreasing ratio from near the circumferences to the centres, and the differences of temperatures from the centres towards the circumferences must, therefore, increase in an increasing ratio—*i.e.*, in the ratio of the increase of gravity in the same direction. If the theory of *pressure* as thus broached does not amount to demonstration, I must leave it to Mr. Hopkins to tell me what demonstration is. No heat, light, electricity, &c., could possibly be produced were temperature equable. No electricity, it is well known, can be drawn from the transparent equable temperature of the high-pressure steam of a steam-boiler, it is only where equilibrium is taking place that such can be had; this has been proved over and over again. We may thus rightly infer the origin of water and of air. When the earth began to condense into its globular form, the production of heat by the pressure of gravitation would evidently cause the gases which form water and air to be evolved. What, I would ask Mr. Hopkins, could be more simple and self-evident? Although Mr. Hopkins may be a good practical geologist, still he appears to me somewhat like many good practical mechanics, chemists, agriculturists, &c., who despise all theoretical knowledge of their arts, who are fond of viewing effects, but never think of investigating the causes which produce them.

With regard to Mr. Hopkins's observations on the temperature of the surface water in high latitudes being often near the freezing point, while that at the depth of 260 fathoms is almost constant at 40°, he is again obviously playing into my hands. When the atmospheric temperature is in or about the freezing point, and evaporation from the ocean's surface (from a warmer medium into a colder one) rapid, the chilled surface water, which has parted with a portion of its caloric to the evaporable molecules, will naturally (unless it becomes fixed into ice) descend to the bottom of the ocean, where the high pressure (say, a column of 260 fms.) will very naturally cause the temperature to rise at the bottom considerably above the freezing point—say, up to 40°. This goes far to establish my theory by direct demonstration. It has, indeed, been proved that the water under severe hydraulic pressure generates heat in the ratio of the pressure (see an article on this subject in the *Engineer* about a fortnight ago); Mr. Hopkins has, therefore, put into my hands one demonstrative fact, the *Engineer* another; but many more might be adduced that heat increases in the ratio of the pressure. Hence the heat must increase in a decreasing ratio from near the circumference to the centre of the earth. These facts are no assumptions; they prove my theory from physical facts, some of which Mr. Hopkins has unconsciously supplied, as demonstrably as a proposition of Euclid, at least to any man who is able to comprehend a demonstration from known data. I know nothing about the Tamar Mine, but the "West of Cornwall" cannot be very many miles from a mountainous district. These hardly deserve comment, as the waters of mountain tops and sides drain through substrata, and discharge themselves either through the bottom of the ocean or into rivers; very often far away from the mountains where they were first deposited. Mr. Hopkins further remarks—"We must wait until we see the demonstration. It will be a curiosity to see a thin crystalline globe retaining incandescent matter for an hour without being melted." Mr. Hopkins seems to write like *un homme sans connoissance.* Did I not explain in my former letter that the heating force acts outwardly from the centre, and the gravitating force in the opposite direction towards the centre—that they obviously mutually generate each other—that they are, in fact, co-equal and co-existent, holding each other in equilibrium, and, therefore, preventing each others escape? It is a well-known fact that we can infuse a much larger quantity of heat into a given quantity of water when under severe pressure than when the pressure is slight or removed. What further demonstration does any reasonable man need than this? The earth's internal heat cannot, therefore, escape under the conditions of permanent equilibrium of forces. Earthquakes are, doubtless, produced by surface magnetic currents. Mr. Hopkins, near the close of his letter, appears to be inclined to sap the very foundations of the "Principia," and the fundamental principles of astronomy. The untenable drift of his argument relative to "the external attraction of a hollow shell of small thickness is equal to a solid one," bears its own confutation as connected with the mean density of the earth. As regards the remarks of "An Old Traveller," who has introduced "the precession of the equinoxes" into the subject, I cannot conceive what precession or nutation has to do with the earth's central heat. Newton, in his "Principia," prop. 39, B 3, demonstrates that the precessional revolution of the equinoctial points is produced by the combined action of the sun and moon on the protuberant matter about the earth's equator, and which protuberance is caused by the earth's axial rotation. WM. STEEVENSON.

MINERAL VEINS AND THEIR BEARINGS.

SIR,—I shall, with your permission, make a few remarks, in treating on mineral veins and their bearings, on the work entitled "The Laws which Regulate the Deposition of Lead Ore in Veins." I am rather amused at the following, from Alston Moor, because most of the mines are under the direction of the proprietors:—"In the North of England the mining agents are chiefly selected from among the workmen, on the supposition that their experience will enable them not only to propose suitable trials, but also to plan and direct the mining operations in the most effective and economical manner." Are the Waltons, Millicans, Curries, Cains, Nevens, &c., the selected, or where are they? "But it is manifest that employment in such labours affords no suitable training for those whose province it is to investigate the most difficult problems of geology and mineralogy." Why not? It is from practical working the best experience is to be gained, and all those I have named are men who have worked in the mines for knowledge, and I am sure you cannot surpass them. Mr. Wallace must be aware, if he knows anything of the district, that the professors of geology and mining, who have had the direction of mines in the North, have made most egregious mistakes. But we must examine how far Mr. Wallace, by his own experience of the "inductive and deductive reasoning, and the long course of philosophic and logical habits of thinking," is able to judge, and we shall see in the sequel how it is in practice. In the first place, there is no mountain limestone in the Alston Moor strata, nor any on the Cross Fell range. The carboniferous lime named on the Geological Maps is *the* mountain limestone, 600 yards deep or upwards. The Fell top limestone of Alston Moor strata is only 2½ yards deep in any district. The great or 6-fathom limestone, the principal lead-bearing post, has three or four bands below it; and then comes the Cross Fell strata, the Great Bundle Lime—44 yards, but that is beneath the whim, which is here 47 yards, and not, as Professor Sedgwick says, a basalt dyke; and then we have three more limestones with the other strata. It is laid down on the Geological Maps as the "upper limestone shales." But how they turn whin, freestones, sandstones, and plate shales, from 4 to 48 yards deep, into limestone shales, I leave Mr. Wallace to say, and also which limestone it is the "laws have deposited." "The universality and uniformity of Nature's laws"—if such there are—have nothing to do with the earth, veins, or their contents in forming them, they are as they were created, and the comparatively small increase of crystallisation is purely chemical. The earth is stratified, but not in uniformity, nor ever was; it is the diversity that makes it habitable and healthy, and causes the changes essential to man and animals. Mr. Wallace has adopted the drift glacial theory of geology, and is assuming there is a gradual and progressive forming of the earth. And then to account for its diversity, both in strata, rocks, and veins, he attributes their seeming disorder to some deep-seated forces, which he does not explain, and then says—"It will be observed that the antecedent or cause of all these changes and resulting phenomona is simply the subsidence and elevation of a portion of the earth's crust." I am obliged to observe the simplicity in his own words—"But what is the cause of this oscillation, and what are the laws of its action? To these questions Science has as yet furnished no satisfactory reply." Of course, there being no action, Science does not acknowledge the assumed "laws," knowing, or rather teaching, that Nature has no laws always uniform, nor are they eternal.

And now we shall see the working miner's practice, and Mr. Wallace's knowledge of mineral veins, when he states, "There is some reason to conclude that the great sulphur vein is later formed than the east and west veins, on account of the acute angle of intersection." But the east and west veins do not intersect this vein at the acute angles stated, the direction being half a point west, and so states Mr. John Leithart, who was agent for Greenwich Hospital, and worked this sulphur vein; he states it to be "a half-point north-west vein, carrying gold, copper, and lead; is from 20 to 50 feet wide; in some strata, as at Cask Burn Force, solid quartz, has a 20 fms. throw, with an underlie of 7 fms. in 10 fms., and known in coal measures as a fault 30 yards wide." The above, with a slight error, is true. The vein crosses from the North Sea to the Solway Frith; and on the south wall every stratum is up from 3 to 60 ft., as regular as the strata. If you consult Sir Roderick Murchison and Professor Ramsay's Geological Maps, you will find that they lay down the strata and rocks; it is seen on the sea coast; passes through the upper and lower colite, lias, and trias millstone grit; then through the Cross Fell strata, part of Alston Moor strata, conglomerate, old red sandstone, and new red sandstone, to the Solway Frith. Now, it is very evident it must be as old as all these rocks and strata, or it would not appear in them; every strata being lower to the north and elevated to the south and west, proves they must have been found together. Just fancy this being one great fissure, or merely a fracture in the strata. Mr. Ennor says North Countrymen do not know a south course from an east and west vein; and who could contradict him, if Mr. Wallace's statements were taken as exponents of their knowledge? But, in the tracing out the east and west veins this will appear much more ridiculous, which I shall do in my next, taking a vein which has returned the proprietors 20,000*l.* a year for some years. It is very certain Mr. Wallace has not traced these veins out, or he could not assume such positions, so at variance with facts. G. ATTWOOD.

THE GEOLOGICAL FORMATION OF THE EARTH—No. IX.

SIR,—My last communication having closed with remarks on coal formation, I will next make some observations on the impressions of plants being found in coal and other bituminous rocks. I contend the majority of them are natural emblems, and such as the botanist has not yet been able to give any certain interpretation as to what plants they were. All bituminous matter in its crystallisation is well known to produce impressions, imitating many plants, and even trees,—it is the origin of vegetation striving to propagate; in fact, there is not a rock in the earth but produces a crystallisation of some form or other, agreeable to its own law. After what I have myself seen produced in layers of rock, I am very sceptical as to the prints or emblems of trees or plants being real. As a further proof, I ask, why these rocks containing bituminous matter, or, I might even say, vegetable matter, should in every place produce the same emblems of plants, and the other layers of rocks not? I admit it possible that plants or trees might have wafted in the ocean and settled down at the time of the rock formation, as shells did, but they did not grow there. If washed there, they should be found in all layers alike. I should think it far more likely to see in these layers of rock the impression of sea-weeds than of land plants. The shells found in coal, or near it, only go to prove it was formed under water; and no brambles, ferns, or rushes ever grew under sea-water. These things call to mind my going into a coal mine for the purpose of seeing timber-trees, brambles, ferns, and rushes. I could not recognise either; but a man was produced who offered to swear he took out of a rock in a mine 300 ft. deep a large hamperfull of blacksmiths' rasps, such as is used in the process of shoeing horses, and which, he said, were all taken to the office for safe keeping. I did not ask if they had used them for shoeing horses.

Near Bampton, in Devon, there is an undulating magnesian lime formation; on the top of each summit there is a crystallised form resembling the head of a man with helmet on, and a large roll passing over the top of it, forming, as it were, two faces,—that is, it is alike before and behind. These forms, which appear as though fairly cut off at the neck, I have myself passed off on a learned gentleman as the petrified heads of some of the Egyptians that were lost in the Red Sea when in pursuit of the Children of Israel. There are crystallisations of nearly the same kind found in Dyliffe Mine, in Wales, nearly 100 fms. deep; and two or three are to be seen in the public streets in Machynlleth. You may rest assured that I scrutinise even fossils with a jealous eye, after what I have seen attempted to be palmed off on myself and others. They might as well attempt to get me to believe a blistered stone of iron ore—as one of your correspondents attempted to show of late—was a melted one, as to make me believe the impression shown me in deep rocks is from indented land-grown plants. All the up-and-down throws and shells clearly prove these rocks were formed under water, and the shifts are caused by the growth of one layer and decay of another; this I leave to be proved by my own and the theoretical geologists' diagrams. A great deal has been written on marine shells being found in one layer, and freshwater shells in another. This might occur, and, at the same time, all the water on the earth connected, as we have evident proof. That all the water on the earth was not of the same character, each new-formed layer and every locality gives convincing proof of this. See the quantity of mountain lime formed in some places, and in others little or none; then see the salt formations in certain districts, when it is not to be found again for 1000 miles. It is clear to be seen that rocks, when forming under water, evidently varied in their component parts within every mile. I am not prepared to say that all these changes of rock were, when it first formed, under water, as now found. On its purifying many changes must have taken place, even since it has been above water, still the rock I have here named is sufficient to show that rocks must have varied considerably when first formed. Under these circumstances, one part of the ocean, where it was shoal, and where little or no currents flowed, and had a great rise or influx of fresh water from springs at the bottom, would cause the water to be fresh for a hundred miles round, and freshwater fish might have come in and increased to great perfection, and left shells plentiful in that locality, which would be ample proof of their once existing there. The fresh water might, again, have subsequently been changed by some bar or rise of sand, or volcanic action, that turned the flow of tides, which again brought in saltwater fish. All these things are possible, and did probably happen, but there is no proof of these spots being alternately above and below the sea; neither does it bear out the law, as now laid down, that the interior of the earth was, and is now, like a burning cauldron, as stated in the Journal of Oct. 19, where Sir Roderick Murchison is said to have used the expression,—"That the man that will not believe the interior of the earth is like a burning cauldron is an ignoramus." Whether he really did say so, or not, is immaterial, I know him to support the theory of interior fire. I think I met Sir Roderick once; and I beg to tell him that I have had a thousand times more experience as to the earth's interior formation than he ever had,—I have been fifty-five years watching the interior of the earth. I have not the least objection to be placed in the category he names, as I am sure Sir Roderick Murchison and all his pupils will die a natural death within the next twenty years, leaving not a single monument to record their geological fame. Fully one-third of those termed scientific geologists are already like the weather-cock—wavering, and will shortly turn round and take a more sensible view of the rock formation. I was very much amused on my late return from Spain to find a lecture-pamphlet at my lodgings from Mr. H. C. Salmon, with the author's compliments. This gentleman was once a disciple of Sir Roderick's, and, like most plutonians, believed the rocks on the Cheesewring, in Cornwall, came up so hot that the ancient Druids burnt incense on them. Now, Mr. Salmon for the last seven or eight years has been as hard-working as any man that has travelled England. Not like most of the travelling geologists and their pupils (who I call Sunday-going men), this man has been pulling off his clothes almost daily and going underground in mines, where he got all the information he could from the captains, and seeing for himself as well, taking his own views after. He has not only taken mine captains and practical men's views, but he took the views of those best informed in mining districts. See the conclusion come to in his lecture. He has evidently turned his back on Sir Roderick and the fire worshippers, and openly states that mountains were not thrown up sufficiently hot for the ancient Druids to cook their victuals on, but that they were thrown up in a cold, metamorphic, or placid state. How different from Sir Roderick's views. I cannot do better than describe what he says is the general opinion of practical men on this subject. At page 27 he says:—"You will perfectly understand me when I call to your attention the notion so popular among miners, of all times and of all nations, that rocks 'grow,'—a conviction so wide spread amongst a class which, above all others, is brought in everyday contact with the actions and appearances of rocks in the interior of the earth. This (he says) is certainly worthy of consideration. No matter how inaccurate may be the language in which it is expressed, it is not so absurd as it at first sight appears, for the action of water on the mineral crust of the earth may not be inaptly illustrated by way of a simile, by a comparison of that of the action of the blood in the economy of animal life. The blood, charged with certain organic matters, and with the oxygen it receives at the lungs, penetrates through every ramification of the animal body, causing in its circulation a continued change of substances, and a chemical action allied to that of combustion. The water permeating the mineral masses, holding other minerals in solution, and generally charged with certain acids, causes an action not wholly dissimilar, although, of course, on a much less energetic scale. Again (he says), in the inanimated as well as the animated world there is, in truth, nothing unchangeable; the changes which have taken place, and are now hourly taking place, in rock by the slow action of chemical and molecular movement, brought about by the permeating water charged with various and ever-changing mineral matters, must now be estimated as infinitely greater than we could a few years ago even conceive." This is pronounced after a thorough mine inspection; he says not a word about interior fire. I may now say to Sir Roderick that all his college education never made him an equal for a self-taught Practical as to the geological laws of the earth, and he is now too old to learn; I fear he will die with nothing more than a smattering knowledge of the subject. All the travelling in the world and looking at the mountains and surface rock will never bring a man practically acquainted with the interior law of the earth. In conclusion, I will not call Sir Roderick an "ignoramus," but civilly tell him that I defy him to prove there is any increase of temperature generally as we descend into the earth, or that the density of rocks increase, or that they even harden in depth; neither can he prove that any kind of ore forms and accumulates in a large mass below where the oxygen and sulphur pass in sufficient quantities to mineralise and fix the ores. Oxygen will mineralise tin; it is this and ores mineralising with sulphur that pays the miner best. This is a new theory to Sir Roderick; and I hope he will yet catch the infection, discard his burning cauldron, and join with my friend, Mr. H. C. Salmon, in adopting the metamorphic theory, to which I shall next refer. NICHOLAS ENNOR.

Dec. 4.

THE MINING SCHOOL, GLASGOW.

SIR,—In my recent tour I had to pass through Glasgow, where I made it a point to call at the Mining School, which, I am sorry to say, is not so well known as it should be in a city whose wealth and prosperity is wholly dependent on its metallic and mineral productions. On arriving at the school I was met by Mr. Mark Fryar, who I found very obliging to a rough country miner, travelling *incog.* He at once left his pupils, and paid me every attention, showing me all their minerals, fossils, and many drawings. He also took me through the laboratory or chemical department. In this institution I submitted three or four stones of ore (picked up on my journey, and not assayed) for their opinion, on which, like the doctors, they disagreed. I was afterwards, through the kindness of Mr. Fryar, accompanied to the hotel of Mr. Henderson, of Alderley Edge, so celebrated for separating and treating poor copper ores; this gentleman differed from all the others in his opinion on the stones of ore. These stones I have not yet had time to test, but believe them to be good specimens of zinc ore, which was not named by either; at once showing how difficult it is to detect ore of any kind in the stone. Still, I have to state openly that I was much pleased with Mr. Fryar, who evinced a disposition to give every man all the information he was able. How different to some of our English teachers, whose excuse is,—"We did not know you." I say Mr. Fryar, not having the slightest idea who I was, appeared ready and anxious (as all teachers should) to impart all the information in his power to those visiting the institution. I regret I was necessitated to withhold my name, but hope some day to meet him again, and give him a three days' lesson, receiving a similar number from him in return, when I think I shall make a convert of him; I pretty well know his views, and he has mine weekly. On the interior heat of the earth I was surprised to find him so guarded; I could not draw him out. I even pointed out the melting-like stone of iron ore in contention between him and my friend, Mr. Hopkins, but he would not speak out. I was sorry I had to be on my guard, as, had I been in a position to have made myself known, I had many diagrams with me that I should have shown him, with which I certainly think he would have been pleased, but I could not then touch on them, as half a word would have been sufficient for him to have mistrusted me.—*Dec.* 3. NICHOLAS ENNOR.

MINING IN CARDIGANSHIRE.

SIR,—It is with unfeigned satisfaction I read the comments now so frequently inserted in the *Mining Journal* respecting the capabilities of this once, and again to be, celebrated mining county, seeing they so perfectly accord with the expectations I published about five years since, at which time I was engaged for several months in investigating various localities, most of which have suffered and enjoyed the vicissitudes to which mines are, unfortunately, but too frequently subjected. As considerable attention is now being directed to the valuable deposits of mineral I then went over, a recurrence to a few particulars connected therewith may not be out of place or unacceptable to many of your readers.

My chief and first errand was to the neighbourhood of Llanddewibrefi, where it was intended to have wrought an extensive series of mines. I was engaged for several weeks in inspecting, in laying down the position of the lodes, and in endeavouring to forward the interests of the company. On my second visit I had the pleasure of meeting my friend, Capt. Rowe, of the Laxey Mine, who had been employed to report also: his answer to the representatives of the proposed company was, that he could neither add or diminish to or from my report, which he thought candid and correct; that in amount was that the mines were well worthy a trial. Circumstances, however, arose amongst the promoters which led to entire disorganisation, and the matter dropped through; not from any want of capacity in the mines, but in the directory. A trial was subsequently made at a point I suggested; a fine lode of copper and lead was met with, but funds were not forthcoming to develope it. An attempt has since been made to work this property, but with no better results, and abandoned, I believe, from the same causes.

Well do I remember the piping hot summer's day that I journeyed from these mines to Pontrhydfendigaid, laden with specimens, to convey which I found it impossible to procure horse hire. Never was I so glad to see the full length portrait of a Red Lion as I was at the hospitable hostlery of James Kemp, who, on enquiry, I found was not only a fellow-countryman, but came from close proximity to a mine I was at that time working (Pencorse). I received and enjoyed that welcome usually accorded under similar circumstances. After visiting the Esgair Mwyn, Lisburne, Frongoch Mines, and admiring their splendid machinery, I was asked the common question, "Do you want to buy a bal?" On replying, that depends upon circumstances, I was told I should see it the next day; this I did, and was so pleased that I made instant arrangements to visit the proprietor: a sum was named, the time limited for payment at the price quoted, and I anticipated a great prize. My attention was then drawn to another mine, at that time just opened; a shaft had been put down by two speculative persons resident in the locality, on the back of a splendid lead lode; a small water-wheel had been put up, but their means prevented further progress. I also tried to bargain for this lot, but the price was so preposterously high, so utterly incompatible with anything like reason, that I was reluctantly compelled to abandon all idea of arrangement. This mine is now the favourite and promising Brynhope.

On my return home I persuaded a capitalist of Leeds to accompany me to mine host of the Red Lion. Illness prevented his being able to visit the village at the time specified, notwithstanding a letter had been forwarded to that effect. We only arrived a day or two too late, and to find that the mine had been purchased and paid for by that acute and profound judge of Cardiganshire mining—Capt. Matthew Francis. This mine is now the Abbey Consols, evidencing that delays are dangerous. The Leeds gentleman referred to being a shareholder in the Goginan Mine, and a personal friend of Mr. J. Taylor's, we spent some days investigating the mines and neighbourhood under peculiar advantages. We were mutually struck with the extraordinary indications presented in almost every direction, a visit to the Devil's Bridge giving an excellent opportunity of observation. The hotel at that time being closed, we were guests of that compendium of Cardiganshire information—Mr. Joseph Scott, whilom of the Duffryn Castle. Here we gained special gratification by visiting a pretty little mine, so called, near the hotel, at that time producing lead and blende in considerable quantities.

A journey through the Hafod estate ended in a determination, if possible, to procure a grant, or grants, to mine that property. The indications of mineral wealth were so positive, so decided, so numerous, as to be perfectly palpable even to a novice. Enquiry, however, assured us that at that time no leases or grants would be accorded, as Mr. Chambers, who had only just completed his purchase, had not as yet made up his mind. To our great regret, this source of mining was entirely closed.

On another occasion, on visiting the great mines at Cwmystwith, Goginan and Nant-y-Mwyn, the River Ystwith being that summer very low,

I determined to make an excursion, and search the cliffs that overhang that stream. The information I there gained well rewarded me for my trouble and pains, though for any other cause I have but little to thank Cardiganshire mining, as, in a pecuniary point of view, my experience has been dearly purchased. I, however, must, in justice to myself and to those who have been more fortunate, express my satisfaction and pride that in the Silver Bank and North Hafod Mines the adventurers will, if the representations I see quoted from time to time be correct, realise all the riches my impressions at the period I refer to led me most decidedly to believe were embedded in the Hafod estate. GEO. HENWOOD.

Lochhead House, Nov. 29.

ECONOMY OF MINING OPERATIONS.

SIR,—In my letter dated Nov. 20 I stated that "I believe Captain J. Richards, of the Devon Consols, was the first to sink a shaft on the inclination of the lode from the surface, in order to make it straight, and fit for the introduction of skips." I remember in 1850 and 51, when I was consulted by the proprietors of Wheal Carpenter, regarding the system of development to be adopted at that mine, that it was resolved to sink an incline shaft for pumping and drawing, and Capt. J. Richards adopted the same plan for drawing by skips at the Devon Consols. I saw several shafts on the underlie of the lodes before that time in Cornwall, where chains and kibbles were used, but no shafts made straight for the introduction of skips on wheels.

My old friend Mr. Ennor, in last week's Journal, thinks that I have made a mistake, in stating that Capt. Richards was the first to adopt the plan referred to. I may be wrong, but Mr. Ennor's statement does not prove it. An incline shaft might have been sunk at Treburgett forty years ago, but it was not made straight for the introduction of skips with wheels and runners. This is the question at issue, and not the mere sinking on the course of a lode and drawing by kibbles. Mr. Ennor admits that incline shafts "are better for wagons than kibbles." Certainly incline shafts ought to have rails and wheels, like levels. Why should raw materials be drawn at greater cost of power and wear and tear in the former than in the latter? There is scarcely a miner in a civilised country who would attempt to draw the stuff from a level without wheels, either in a wagon or a barrow.

Mr. Ennor displayed very great mechanical ingenuity in raising the produce from the Delabole Slate Quarry; and he must agree with me that it would be a very great benefit were similar economy applied to all mining operations in Devon and Cornwall. Adventurers are perfectly right in endeavouring to prove the lodes as they proceed; but whether they drive or sink on the lodes, they would not be justified in allowing heavy costs for the mere extraction of the raw material in a slovenly manner over rough surfaces, when the ordinary mechanical appliances are at command, and would save at least one-half the amount. I wish Mr. Ennor's practical experience and mechanical ingenuity could be applied to these very desirable objects, so as to improve and reduce the great cost now attending mining explorations, especially in the majority of the mines in Cornwall and Devon.—*Dec.* 4. EVAN HOPKINS.

MINING IN SPAIN—THE BEARIZ MINES.

SIR,—"Decomposed," I called the tin-bearing bands or lodes (if Mr. Ennor wishes it), because one of their principal components—felspar—occurs in a powdery *decomposed* form; even the harder portions, on being exposed to atmospheric action, soon fall to pieces, and become friable. The harder *lodes* are composed of quartz and mica principally, and I believe not only the "strange beings," but even Mr. Ennor himself, would find more than slight difficulties on attempting to work them with the "turnip hoe." I cannot answer the highly-speculative question of Mr. Ennor—whether those bands, &c., were formed at the Creation, or since; nor, in spite of many years' hard practical study in the field in more than one part of the world, have I ever come across a *whole* mass of *primary* rock *growing;* for such rocks are mostly composed of a *variety* of minerals, and the result of my observation is the opinion that within many such rocks or lodes *certain* individual minerals, or certain families of minerals, grow, crystallise, develope themselves, more or less, sometimes at the expense of others. Mr. Ennor, I am sure, *must* have noticed some of the many points of resemblance and dissimilarity, geologically and mineralogically speaking, which exist between the tin-bearing ground of this country (Spain), and that of other countries. Had Mr. Ennor seen any of the tin mines in our country, where the ore is so poor that only very great skill on the part of the "tinners," and a most carefully-arranged system, can make the mines yield a profit, I am sure he would not have attempted to sneer at those miners who cannot claim the honour of counting him (Mr. Ennor) as one of their countrymen.—*Galicia, Nov.* 25. G. J. G.

MINING IN SCOTLAND.

SIR,—I fear the conversion of the Scotch land proprietors is neither so general or sincere as Mr. George Henwood expressed in his late paper (No. XII.) on "Mining in Scotland." In proof of this, I may mention one case in which the proprietor of an estate through which a copper lode is *supposed to pass*, but which has never been even proved, or attempted to be proved, modestly asked a dead rental of 100*l.* sterling annually, certain, whether copper be found or not; if found the hundred to merge, provided the dues (1-16th) were in excess. The estate comprises about 100 acres, is let at less than 100*l.* per year, the greater part being mere waste or moor land, only fit for depasturing sheep in summer, and capable of keeping about one sheep per acre. The place would require considerable outlay for roads, &c., the whole of which would be so much money laid out for the benefit of the proprietor and his tenant.

In another instance, where copper has been found, the proprietor not only declines to grant until he ascertains if he can work it himself to a profit, but absolutely refuses to give the poor miner who made the discovery a sovereign for his ingenuity and trouble. Under such conditions as these mining in Scotland may well languish, despite the efforts Mr. Henwood has made to write it up, and in spite of the great discoveries at the Lochwinnoch Consols, where the dues are only 1-16th.

Landholders may depend they stand in their own light, and thwart their own interest, by exacting high dues, and allowing their tenants to enforce vexatious opposition to the miner. Were such the case in Cornwall, the Lemons, Bullers, Bassets, Pendarves, and a host of other millionaires would have had to dwell as private gentlemen of limited incomes, instead of being amongst the most wealthy of even England's richest aristocracy.

I hope this letter may be widely circulated amongst Scotch gentlemen, that they may be induced to see the matter in its true light, and thus encourage the introduction of that *siller* of which they are so fond; for if they persevere in the obstinate and stupid course of endeavouring to grasp all, and to look upon miners as interlopers, they may depend upon it they will have ample opportunity of working their own mines themselves: capital will seek more genial climes, and more favourable circumstances. No sane person for himself, nor would any board of directors, be warranted in taking up setts under such preposterous circumstances as those first mentioned in this letter, as not only would ruin be entailed to the lessees, but the work they would execute would be expended entirely for the behoof of the next comer.—*Nov.* 30. A FRIEND TO SCOTLAND.

MINING IN CARDIGANSHIRE—THE ABERNANT MINE.

SIR,—The Abernant Silver-Lead Mine lies to the west of the West Silver Bank Mine. The lode crops up to the surface full of ore, and it has been excavated by means of shafts and open cuttings for a length of upwards of 50 yards, and for the whole of this length the display of ore, both in the lode unbroken and broken, along the surface is quite extraordinary. It would have been a matter of surprise to me why this valuable mass of ore should have remained so long unworked if I were not aware of the nature of the lodes in this district and their deposits; but the explanation of the matter is this, the produce of this lode contains a hard rich ore, which it is difficult to deal with by means of the hammer and must be dealt with by powerful crushing machinery in order to obtain its profits. I found this to be expressly the case in Goginan, where, twenty years ago, from one bargain of six men, I have seen 30 tons of ore stuff broken in a day, which would require 150 girls a day to reduce by hammer or hand, which, at 1*s.* per day, would cost 7*l.* 10*s.* Now, a good crushing-mill would reduce more than twice this amount for a cost of 12*s.* to 15*s.*, labour and everything included, thus effecting a saving in one bargain of nearly 7*l.* per day, or 150*l.* per month. At the time that Abernant and Goginan (the ores of which are very similar) were formerly worked there were no crushing-mills, and all the ore was crushed by hand labour; and by a calculation I entered into at the time I opened Goginan Mine, I found that although Goginan, by means of modern machinery, was realising a profit of 700*l.* per month, or upwards of 8000*l.* per annum, if the work had to be done by hand the success would be quite reversed, and the mine would have been losing about 20,000*l.* per annum.

At Abernant, as I have stated, the ore is abundant for a great length along the surface of the lode; and although it could not in ancient times be wrought at a profit, I calculate, from the number of shafts and ore bargains exposed to view along the surface, from which ore can immediately be broken in very large quantities, that if a good crushing-mill be erected it may easily be supplied with sufficient ore to return 20 tons of clean ore to the market per month, at a profit of something like 5*l.* per ton; or, in other words, that the mine could immediately be made to give a profit of 1200*l.* a year. I do not mean to say that it is not necessary to sink shafts and drive levels; this must be done as a matter of course, but the capital for the purpose and for erecting machinery bears but a very small proportion to the value of the mine in sight; and I have no doubt, and no person can reasonably entertain a doubt, but that the lower sections of the vein will be found greatly enriched with metal. The upper section at surface, however, is now full of very rich but hard ore, spread in ribs and branches, through a lode of which a division of 5 to 6 ft. in width is cut open to the day, and the ore stands up strong and bright in the daylight, open to the inspection of every and anybody. A good crushing-machine, which would begin to make profits at once, would cost about 250*l.*; and an additional 1000*l.* would lay open another working section of the mine, and ensure a handsome income and a permanent and very valuable mining property. It would, however, be wise, under limited liability, to raise a much larger capital than what is actually wanted, as the credit of mines under this law depends upon their having a large reserved fund, and I should advise 5000*l.* to be provided for the purposes of the mine; and if my estimates are right, and I thoroughly believe them to be so, the company will immediately, as soon as a crushing-machine is erected, derive a profit of 25 per cent. upon the outlay, which, from the experience of every mine in the district, will go on increasing at least for a quarter of a century; they have done so for a period of thirty years in the last working, which has been without intermission. I ordered the necessary crushing machinery on the ground; and if the engineering department continues in my hands, I undertake to deliver it to you a good paying property in three to four months from this time.—*Aberystwith, Dec.* 5. MATTHEW FRANCIS.

NORTH HAFOD MINES.

SIR,—I have carefully inspected the North Hafod Mines, and find everything progressing in a very satisfactory manner. The section of the lode which cropped out to the surface, and which was so marked in its mineral character that we were induced to commence the engine-shaft upon it, has responded to the expectations we formed of it, by showing ore only a foot or two below the point where we were enabled to examine it when you last visited the mine. I was prepared to find ore in the lode, but not so near to the surface, and I take this as evidence that a great deposit of lead lies at no great distance under the present bottom of our engine-shaft, whore the lead now sparkles throughout the formation of carbonate of lime. The symptoms we relied upon in this instance, and which have so far answered our best expectations, were a large formation of carbonate of lime, the prevailing colour of which was white, some opaque, and bearing the appearance of having been smoked, and a mass of black oxide of iron for a foot in width, soft, and resembling soot; the whole of this mixture was smitten with various shades of the colours of brown and red, which I concluded where the chromates of lead, and which assisted in settling my opinion that there was a substantial and solid body of that metal crystallised in masses below. We endeavoured, as you were aware at first, to sink upon this out-cropping mass, which we took for the symbol of a good deposit and mine, and got over-burdened with water, but I allude to it and its characteristics so particularly, because in forming opinions as to the chances of opening good mines it is necessary that we should not only regard the data that guide us, but chronicle their chief features for the guidance of ourselves and others, so that they may serve for a beacon for good or for evil; if, for example, our enterprise turns out a good one, and we are enriched by it, it will form a landmark for encouragement in our future operations, but if it proves a false signal, we shall know how to avoid its allurements in time to come. So far, every appearance strengthens the view that we at first formed, that we are opening upon an extensive lead formation. I informed you that we found the issue of water so great that we could not get down with the shaft, and we immediately prepared to meet the emergency by preparing for the erection of a water-wheel for pumping the water out of the works, the pumps and rods for which are now delivered on the mine; the masonwork for the water-wheel pit is completed, and the wheel is probably at this moment delivered on the mine, so that in a few days the wheel will be erected, and all the machinery be put together and completed for working. But while we were arranging this mechanical work we were not idle in the adit, the lode, and the shaft, but attempted to sink the shaft by cutting dams around it into the lode, and further eastward in the sides of the adit, and in this we were so far successful that we tapped the spring that carried the water into the shaft, and have brought it out through the adit by this means. We are now getting on well with sinking the engine-shaft on the lode without the pitwork for drainage, but which, no doubt, will soon be required, as we cannot hope to sink without it to any great depth. I am glad to be able to state that this has been so beneficial to us that we have got into a lode showing flashes of ore through the carbonate of lime, which was dense and solid, and devoid of lead, a few feet above; and although it is not solid enough for mercantile purposes, it is, to my mind, all that could be desired, and a sure indication that the ground we are in is connected with an abundant supply of ore in the lower sections of the lode. We know we are sinking on the arms of the Great Frongoch lode, which have yielded thousands a year profit, and the value of which has been immensely increased by discoveries recently. I hear these discoveries consist of a lode in the whole rock, by the side of the Great Frongoch deposit, on the south, full of rich lead from the 80 to the adit. In our engine-shaft the part of the lode we are carrying is 7 feet wide, between two beautiful walls, bearing exactly the same underlie as the Frongoch lode, full of rich mineral indications, such as gossan and lime, and from which we are getting some beautiful specimens of lead ore; therefore, I think we shall soon be into a good mine here, and from my recollections of the surface section of the Frongoch vein, I shall be surprised if we do not meet with a similar mine, so that you need labour under no want of confidence in encouraging your friends to go on boldly with this enterprise.—*Aberystwith, Nov.* 30. MATTHEW FRANCIS.

WEST SILVER BANK.

SIR,—I have just concluded my examination of this new and fortunate undertaking, which at first sight I found presenting larger rocks of ore, and of a more solid character than on my previous visits; and although I have heard that the envious have sought to depreciate the value of this discovery, it will be difficult for the most malicious to succeed in so doing. The quantity of ore contained in the upper section of the lode is of itself a sufficient guarantee of the nature of the ore ground below; and although I hear rumours about here that people are anxious to decry the merits of the mine, I know that their opinions will fall upon a deaf ear, as far as you are concerned; for, after you and so many gentlemen have had ocular demonstration of the yield of the lode, all such idle talk will only be regarded for as much as it is worth, which is the merest chaff. I am glad to inform you that the men, in cutting around the south side of the shaft for erecting a small shed over it for shelter for sinking it during the winter, have found large blocks of ore further north than where we are working, showing that the lode is much larger, and extends beyond what we at first took for the south wall. This is an encouraging feature in this formation, for where mines are wrought upon small lodes or branches only 6 or 8 inches in width, however solid the metal may be, they are liable to be cut off or terminated in short distances; but when the lode forms its ore for several feet in thickness it is a proof that the deposit is an extensive one, and that it is not liable to such interruptions as narrower courses of lead are subject to. The lode in the shaft for the last foot or two has not been so good as for a few feet above. All these formations of ore are chambered or stratified, and I can truly say in Goginan, while we were making from 8000*l.* to 9000*l.* a year profit, and driving the adit through a rich course of lead, there was seldom a week in which on some day you might not find the end without a speck of ore in it. But this is the nature of the ore ground in this district; and those who know it well are too wise to attribute any falling off to the fact that areas of ore do not in all its phases present one uniform value. I mention this to you in order that we may not expect what is contrary to nature, and that we shall be in a state to know and appreciate the fact, that the largest profits made in the mines of Cardiganshire are not incompatible with the fact that floors of poor ground in some mines present themselves amongst the richest lines of metal, and that in sinking our shafts and driving our levels we shall be continually meeting with them, and I consider them as valuable as the ore ground, as they are the props and pillars wisely ordained to support the walls and surrounding rock while taking away the richer pockets or divisions of ore on these great lodes, and no mode of artificial architecture could so well supply the place of these natural barriers. Having said so much on this subject, and assuring you that it is my opinion that this deposit will go down to a great depth, and extend to a great length, without any serious interruption, I will describe the work we are undertaking to render the mining operations constant and regular. We are now erecting a water-wheel of 20 feet diameter for pumping, and we intend to sink Cotterel's engine-shaft as fast as possible, in order to drive a level and lay open a longitudinal section of 10 or 12 fms. in depth, to be worked into ore bargains. For the moment the men in the shaft are opening around the top of it for a foundation for a shelter, as they could not work in the shaft while this was going on from the danger of rocks falling down. In a few days this will be completed, when the shaft and the other operations of the mine will be carried on with rapidity and regularity. I am very glad to say that the water in the upper crust of the lode, which is running through the side of a steep hill, offers no difficulty as yet to sinking, and by the time it increases so as in any way to obstruct our progress, the machinery will be ready for draining it. My opinion is that this mine will be opened on one of the best ore deposits in Cardiganshire, and that it will be a source of great and constant profits to the company.—*Aberystwith, Dec.* 1. MATTHEW FRANCIS.

THE SLATE TRADE.

SIR,—I am pleased to observe that the public are at length becoming alive to the great value of slate companies as investments, for I feel certain nothing can be more profitable at the present time than a well-selected slate quarry, under judicious management. Caution, however, should be used, and rigid enquiries instituted in proper quarters, before shares are taken in any of the slate companies that are now being so continually brought out, as some of these schemes are utterly worthless, the "so-called quarries" having little, if any, slate in them. Other quarries, though abounding in slate of good quality, are so remotely situated from a port, and require so much expensive machinery, that the expense of raising and getting the mineral to market must swallow up the greater part of the profits. I could without difficulty class most of the recently introduced quarries, but will content myself with mentioning at present two of the most promising—the Moelwyn and the Glan-y-Pwll, both well situated in Merionethshire, on the Festiniog veins of slate. The Moelwyn (I rather think it is styled the Great Moelwyn) has abundance of good slate, and is being most vigorously worked, and in two years' time, with a judicious expenditure of its large capital, ought to be made to pay most handsomely. An incline from the quarry to the Port Madoc Railway, a distance of, I should say, 1600 yards, will be laid down in the spring. This company, I think, may be very safely recommended to intending investors. As to the other—Glan-y-Pwll Quarry,—I fairly confess I am enchanted with it. Its admirable situation, the facilities for working it, the immense amount of first-rate slate it contains, all point it out as certain to prove largely remunerative to its fortunate proprietary at a comparatively early period. Nothing can be more judicious than the plan adopted in working this property by its talented manager; and the London board consists for the most part, if not wholly, of shrewd business-like men (I have the pleasure to know four of them thoroughly), who will most assuredly study the shareholders' interests in every possible manner. I feel justified in asserting that the Glan-y-Pwll Slate Company will be in the Dividend List by the end of next year, and that in a very few years it will equal in wealth the famous quarry belonging to Lord Palmerston, which is in its immediate proximity, and on the identical seam of slate. Glan-y-Pwll Quarry is, in fact, one of the most promising—if not the most promising—slate concerns that has ever been offered to the public.—*Dec.* 2. JENKIN REES.

WHEAL FLORENCE.

SIR,—This mine is situated in the parish of Perranuthnoe, near Marazion, adjoining and west of Wheal Grylls, through which all Wheal Grylls lodes run, the eastern boundary of Wheal Florence being the western boundary of Wheal Grylls. It is an extensive sett, the property of Mr. W. J. Treveiyan, and is granted by him to the present company of adventurers for 21 years, from June 26 last, at 1-18th dues, and named by him after a member of his family. In the last four months, since the commencement of our operations, we have raised above the 30 fm. level 12 tons of tin, which has paid for all the requisite machinery, and will leave a clear profit on the four months' working of between 200*l.* and 300*l.* The tinstuff is stamped and returned at Leeds and St. Aubyn, an adjacent mine, where a satisfactory arrangement has been entered into with the shareholders for renting eight spare heads of their powerful steam-stamps, which we are now keeping fully at work day and night. The stamps, floors, buddles, frames, &c., we have laid out and paid for, being our own property, and which are in an efficient state for returning any reasonable quantity of tin. The 30 fm. level, at present our deepest workings in tin ground, is taken up from Wheal Grylls boundary, on their standard lode, and in driving west we have to-day met with Fisher's lode, on which their engine is erected. The men brought up some good vans of tin from the lode, but it will require a day or two to cut through and open on it before I shall be able to report on its value.

Georgia Lode: Wheal Florence boundary, on the south, is within 40 fms. of Georgia shaft, on which Wheal Grylls adventurers are in course of erecting a steam-stamps and pumping-engine, and within 30 fms. of their recently-discovered rich course of tin. We have four men driving the deep adit (40 fms. from surface) north of boundary shaft, on Georgia lode, which will soon intersect the other lodes in Wheal Grylls sett; also Hosking's and Grylls lodes, which in St. Aubyn and Grylls Mine have yielded large quantities of rich copper. Should our present ground continue in the deep adit, which we are driving at a cost of 40*s.* per fathom, within three months we shall cut all the lodes above mentioned, and drain them effectually 10 fms. below our present deepest workings; and, as a large proportion of the mineral wealth of Wheal Grylls and this district has been found above the level of our deep adit, I may venture to affirm that I know of no mine in the county that presents such prospects as Wheal Florence does; it being one of the rare instances in which a Cornish mine has been brought to a profitable and sound state of working without any call being made on the adventurers. We raised last month 4 tons of tin, out of which we sampled some tinstuff from the north part of this valuable sett, which produced 72 dwts. The profit on the month's working will be about 100*l.*—*Dec.* 3. JOHN CURTIS, Underground Managing Agent.

DALE MINE.

SIR,—The remarks of "A Shareholder," in last week's Journal, in reference to this mine, so far as Mr. Niness is concerned, are perfectly correct. Had his advice been acted upon by the directors the mine would have been on the eve of paying dividends; as it is, both time and patience will be required ere that desire be accomplished. The present depth of the Pipe is about 80 fms. from surface, so that it is evident, at the present rate of sinking, something like fifteen to eighteen months will be gone ere the shaft be down to the Pipe. Why do not the directors take advantage of Mr. Crease's machine, by which he will undertake to sink 2 fms. in three days? This is exactly the thing wanted at Dale; the shareholders would then have their shaft down in something like four months, and their shares four times their present value. I believe Mr. Niness has called the attention of the secretary to this machine, but whether the directors have had it under their consideration I am not aware; my opinion is the subject is worthy of their attention. There is another source of profit which the shareholders ought to look after—the lime-kilns. Although the subject has on two occasions been brought before the shareholders, yet nothing practically is done. The shareholders are not told why, nor can I see any reason why; the kilns are there, the limestone is there, and the demand for the lime when burnt is there. I, as a shareholder, should like to know the why and the wherefore of the delay. If the directors do not feel disposed to work them, I, for one, should be glad to take them off their hands at a reasonable rent, and would have them at work the next burning season. There is an excellent market for the lime, and a profit from that would, I have no doubt, be as acceptable to the shareholders as a profit from lead. Let the shareholders bestir themselves upon this point, as I can assure them there is a good profit to be realised from that source alone, especially now, as the Blue Hills Colliery will soon be at work, which will be able to supply coal at two-thirds the present price, it being within a few miles from the kilns. J. SYKES.

Leek, Dec. 4.

GRAMBLER AND ST. AUBYN MINE.

SIR,—In driving the 12 fm. level south we have cut the horse-engine lode, which is 15 in. to 16 in. wide, of very good ore. The lode has also improved in the sump-shaft. No particular alteration in any other part of the mine. WM. RICHARDS.

Redruth, Dec. 5.

WHEAL SETON.

SIR,—In consequence of so many disparaging reports respecting this mine, will you kindly insert the following in your valuable Journal of Saturday next:—In the 140, east of Tilly's, on the north caunter, the lode is 7 ft. wide, producing 7 tons of ore to the fathom; in the 140 west, on ditto, 4 tons; in the 140, west of junction, east of Tilly's, 3½ tons; in the 140, east of Tilly's, on new south lode, 5 tons to the fathom; in the 140 west, on ditto, 3½ tons, and still improving; in the 130, west of junction, east of Tilly's, the lode is 4½ ft. wide, producing 2½ tons of ore to the fathom, with every indication of a further improvement. In the bottom of the 130, about 8 fms. to the east of the eastern end, at the 140, on the north caunter, a winze is sunk 5 fms.—lode 3 ft. wide, producing 6 tons of ore to the fathom, worth from 12*l.* to 15*l.* per ton; this, in consequence of so much water, is suspended for the time, but hope the same will be shortly drained by the level below. A sudden failure has taken place in the 70, west of Bull's, on the south lode; lode split for the last 2 fms., but as the two parts are now together again we are under full expectations of an improvement at this point. In the 100, west of Tilly's, on north caunter, the lode is worth 6 tons of ore to the fathom. If the adventurers will have a little patience in opening up a level or two below the present bottom, which is being done with all possible vigour, we believe Wheal Seton will again become a large and profitable mine.—*Dec.* 4. ROBT. WILLIAMS; WM. ROWE.

MINING IN SCOTLAND.

SIR,—As to enquiries made by your correspondent, "Scotia," in last week's Journal in reference to the Erins Copper Mining Company, I beg to give you the following information:—This company consists of 1000 shares of 5*l.* each (1*l.* per share on allotment), which were all taken up in one day, and this, too, without being made public by either prospectus or advertisement. The mines were examined by no less than five first-class mining engineers, who all spoke in the highest terms of it; one of them visited the celebrated mines in Cuba, and in his report stated these mines were equal, if not superior, to them. Samples of the ores have been assayed by Messrs. Rickard and Mitchell, of London, and Prof. Penny, of Glasgow, and found to contain from 14½ to 32½ per cent. of copper; and even some of the undressed ore was found to produce as high as 42 per cent. There is about 60 tons of dressed ore ready for the market, and upwards of 100 tons undressed. The report from the mines to-day is of the most favourable character. I hope this will satisfy your enquiring correspondent.

Glasgow, Dec. 4. A SHAREHOLDER.

SORTRIDGE CONSOLS—PRACTICAL MINING.

SIR,—I observe a general meeting of shareholders is appointed to be held next week. As a shareholder, who will, unfortunately, be unable to attend, I take the liberty of mentioning some topics which I trust may come under discussion. First, as to the reason why the driving on the 110 fm. level east has been abandoned. I do not profess to be a practical miner; but seeing that every level below the 50 has proved unproductive down to the 98, where the lode improved, and, according to Capt. Richards's report for the meeting held in November, 1860, was worth 1½ ton per fathom for 14 fms. in length, it does seem to me unaccountable why the driving of the 110 should be suspended when it has reached within a few fathoms of the productive ground in the level above. At first sight, it would seem the favourable report was made to deceive the shareholders, but the high character of Capt. Richards forbids such a supposition for an instant; and, besides, the weekly reports from the mine corroborate the statement, and only make it appear the more extraordinary that, after sinking 60 fms. through unproductive ground, the point should be abandoned just as success seemed certain. Another important point at this depth is the south part of the main lode, which has probably formed a junction with No. 1 south lode, as they underlie towards each other. As I said before, I am no miner; but seeing that the south part of the lode existed at so short a distance from the main portion, it appears to me strange that the course of ore now being worked upon was not discovered before. It might have been tested very inexpensively by cross-cutting (a principle you so often recommend); and it is doubtful whether it would ever have been met with at all, but for the cross-cuts extended in North Robert. In Capt. Richards's report for the last general meeting, he stated that if the committee approved, a cross-cut would be put out towards the great north tin lode, as recommended by Mr. Nicholas Ennor. From such a cross-cut not being mentioned in the weekly reports, the shareholders are left to assume that the committee object to it; on what ground it is difficult to say, as there is every chance of the expense being met by the returns from the present workings. In North Robert, we are told, there is a productive tin lode being driven upon in the direction of Sortridge, and not far from the boundary. If any attempt is being made to see the same lode in this mine, the shareholders are not informed of it. In the 40 and 50 fm. levels west the lode was in a highly favourable stratum, and for a short distance before reaching the cross-course was worth 50*l.* per fathom. Nothing has been done to prove the north and south parts of the lode at this point. As the returns from the mine are likely to exceed the costs for some time to come, it strikes me that now is the time to attempt further discoveries. Should the points above-named be deemed unworthy a trial, I trust the shareholders will excuse my calling attention to them, and attribute my mentioning them to well meaning. J. E.

Dec. 5.

THE ST. JUST UNITED MINES.

SIR,—I was highly gratified last week to see by the *Mining Journal* that the St. Just Mines were likely to be set to work again. Permit an old miner to say a word in his plain way about this property. I well recollect when this mine was looked upon as the best in Cornwall; it gave employment to more men than all the mines in the district, and had it not been for the great fall in tin, and the want of a better power to unwater the mine, it would have produced enormous returns; but circumstances seem to have decreed that this treasure should be left for a future generation. It has been the surprise of all I have known in the district that these mines have laid so long unworked. I have heard special reasons for this, but it has certainly not been for the want of applicants; however, I am rejoiced to find they are now in a fair way to be re-opened, and I am confident of this, that with all the advantages the mining interest possess at the present day in steam-power, improved machinery, practical skill, and the high price of tin and copper, these mines in a short time will rank in public estimation, and give large returns and profits to the shareholders. My poor father, who knew those mines well, I have frequently heard say the time was sure to come when they would be the greatest treasures in Cornwall for centuries. They may be said scarcely to have commenced yet. What is 62 fms. in depth? This mine may be sunk 300 fms., and as the tin is rich, the miners will have no doubt as to its holding down, and I am satisfied in the first start of this mine the adventurers will be encouraged and gratified by handsome returns from the old levels as soon as the water is in fork; but when the sinking operations are in progress, it is then that the riches will be unfolded. And I will mention another point my poor father used to talk of—that he had seen a fine copper lode in the western part of the mine in the decomposed granite and in the killas, running under the sea, which he felt sure would turn out a valuable discovery. I must ask your pardon, Sir, for intruding so much on your patience, but I was so much delighted when I first noticed this project—it brought to my recollection so much of what I had heard my poor father say, when at our fireside on winter evenings—that I could not resist the opportunity of telling what I knew of St. Just tin mines; and, as I have taken a small interest in it for old acquaintance sake, I shall continue to feel an interest in its success, without the slightest doubt as to the results.—*Near Marazion, Dec.* 2. A. RICHARDS.

THE INVENTORS' ALMANAC.—The fourth annual issue of this almanac, published by Mr. M. Henry, the patent agent, has just made its appearance. As upon the first introduction of the almanac to the public the intention was expressed of each year adding to the information given, it will not be surprising that we have again to allude to a further accumulation of valuable data. We last year mentioned Mr. Henry's statistics of patents, showing the number applied for and granted during a long series of years, and giving an analysis of the subjects of the patents applied for during the preceding twelve months. In the edition for 1862, not only have these particulars been continued, but a new and highly interesting feature has been introduced—the applications are classified according to the residence of the inventor, so that the inventive genius of different localities can be readily judged of.

THE LADY'S ILLUSTRATED ALMANAC.—This cheap and elegant little annual is already well known to our fair ones, and the edition for 1862 is now placed at their disposal. It contains the usual amount of almanac matters, as well as many toilet recipes; hints for the flower-garden and kitchen garden, work-table patterns, and other particulars peculiarly interesting to ladies, including well-written tales, beautiful poetical scraps, and a large number of beautifully printed engravings of sculpture, landscapes, and botanical subjects.

MASONIC ANNUAL.—The edition of the Freemasons' Calendar and Pocket-book for the ensuing year has just been issued, and we cannot say more to recommend it than that it is fully equal to the editions which have preceded it. As the fraternity generally are aware, the Pocket-book combines the advantages of a calendar, a parliamentary and a lodge directory; it contains, in fact, a vast amount of masonic information in addition to the usual contents of a gentleman's ordinary pocket-book. To secure an extended circulation for the book it will be only necessary to remind the craft that it is published for the benefit of the Charity Fund, under the sanction of the Grand Lodge, and by command of the M. W. Grand Master.

FOREIGN MINES.

NEW GRAND DUCHY OF BADEN.—S. Richards, Dec. 2: Munsterthal: Schindler engine-shaft, in the 54 north, is now extended 19 fms. 5 ft. 6 in.; the lode is 1 ft. wide, worth 5*l.* per fathom. The stopes in back of this level are producing on the average 12*l.* per fm. The same level south is now extended 11 fms. 1 ft. 6 in.; the end is still in the country by the side of the lode, which during the past month has been tight for working, but in the past week it has a little improved. The 44 fathom level north is extended 55½ fathoms; we have 4 feet of the lode in the end, worth 5*l.* per fathom, and is exceedingly promising, with fluor-spar, quartz, and mundic, bespangled throughout with ore. The same level south is extended 31 fathoms 3 feet 6 inches; we have still 2 ft. of the lode carrying with this end, which is worth 10*l.* per fm.; the other part left behind we are taking away with the stopes No. 1, where the lode is 3 ft. wide, worth 12*l.* per fm. The stopes in back of this level, north of the shaft, are worth on an average 8*l.* per fm. The 34 north, now extended 78 fms. 5 ft. 6 in., is driving by the side of the lode in moderate ground. From the cross-cut lately put out through the lode behind this drivage we have taken down the lode to within a short distance of the end, where it is 2 ft. wide, worth 4*l.* per fm. The same level south is extended 50 fms. 5 ft. 6 in.; the lode is 1½ ft. wide, worth 3*l.* per fm.

LINARES.—Nov. 23: West of Engine-shaft—South Lode: The lode in 95, west of Seguro's winze, is 6 feet wide, and we expect to find the leady part on the north wall. The ground in the 85, west of Seville winze, continues moderately easy for driving. The lode in the 61, east of Warne's engine-shaft, is small, and the ground hard for driving. The same level west is worth 1 ton per fathom; lode open, letting out plenty of water, and looking very promising. The 51, west of Toberueta winze, is worth ½ ton per fathom; lode small, compact, and very regular. The 41, west of Crosby's shaft, is worth 1 ton per fathom; lode open, large, and letting out much water.—East of Engine-shaft: The 95, east of La Suerta winze, is worth 1 ton per fathom; lode large, chiefly composed of carbonate of lime and lead ore. The 85, east of Ramiro's winze, is worth 2 tons per fathom; lode opening good tribute ground. The 75, east of Taylor's cross-cut, is also worth 2 tons per fathom; lode very large, consisting of soft calcareous spar and lead ore.—North Lode: The 75, east of Ordonez winze, is worth 1½ ton per fathom. The 65, east of Damaso's winzse, is worth 1½ ton per fathom; lode much improved since our last.—Shafts and Winzes: Having cut away the ground in the engine-shaft alluded to in former reports, the men are now fixing penthouse preparatory to sinking. San Francisco shaft is worth 1 ton per fathom; the lode continues very regular. San Edwardo winze is worth 1 ton per fathom; this winze has reached the required depth for the 85 fm. level. Ochoa's winze is worth 2½ tons per fathom. Nicholes winze is also worth 2½ tons per fathom; the lode is very large, and of a most promising and productive appearance. The lode in Casa's winze is disarranged, a large joint, or fault, having passed through it. Marin's winze is worth 1 ton per fathom; the lode in this winze is small, which being near the main cross-course does not promise much improvement at present.

FORTUNA.—Nov. 23: Canada Incosa—West of Taylor's Engine-shaft: The lode in the 7th level, west of Gomez winze, is producing good stones of lead. The 6th level, west of O'Shea's shaft, is worth 1 ton per fathom; the lode is small, and the ground getting harder for driving. The 4th level, west of Rendon's winze, is worth 1 ton per fm.; the lode is divided into two small branches. In the 3d level, west of Judd's shaft, the men are opening the south side to see if there is any more lode in that direction.—East of Engine-shaft: The 4th level, east of Lownde's shaft, is worth 1 ton per fm. This end is looking very kindly indeed, and we expect to open a long piece of tribute ground. The same level, west of Donaigre's winze, is worth 2 tons per fathom; the lode continues large and productive. The 3d level, east of Carro's shaft, is also worth 2 tons per fm.; the lode contains sundry small branches. The 2d level, east of Bartolome's winze, is letting out a larger quantity of water than usual.—Winzes: Saez winze is worth 1½ ton per fm.; the lode is very compact and regular. We have resumed the sinking of Canton's winze; the water is still very abundant.—Los Salidos Mine: The 5th level, east of Antonio's winze, is worth 1½ ton per fm. The ground in the same level, west of Fernandez winze, is easier for driving than when last reported on. The lode in the 4th level, west of Salvador's winze, has undergone a great change. We expect it will improve again in a day or two. In the same level, east of Cologan's shaft, there are good stones of ore, and we expect an improvement shortly. The same level, west of San Pablo's shaft, is worth ¾ ton per fm.; the lode is very small at present. The same level, east of ditto, is worth 1 ton per fm.; the lode opening and looking very kindly. The lode in the 3d level, east of Muno's winze, is small and unproductive. The 3d level, west of Buenos Amigos shaft, is worth 2½ tons per fm.; this level is opening splendid tribute ground. The branches in the 1st level, east of San Miguel shaft, are very small, and bearing in a southerly direction; the men are now put to drive north to see if there is any more lode standing there.—Shafts and Winzes: Morris's engine-shaft is worth 2½ tons per fm. There is a decided improvement here; the lode is now very large, and of a most promising appearance. San Gabriel shaft being off, the lope is without alteration to notice. The lode in Olallas winze is yielding good stones of lead ore. Gea's winze is worth 1½ ton per fm.; the lode is very compact and strong. Lopez' winze is worth 1½ ton per fathom.; this new winze is situated 18 fms. west of Salvador's winze, and in advance of the 4th level.

ENGLISH AND CANADIAN.—H. Williams, F. Bennetts, jun., Nov. 7: Morrison's adit advanced 3 fms. 0 ft. 1 in. east of Grass shaft No. 2 without noteworthy change—re-set for November to six men, at $50 per fm., being an increase of $2 over last month. The adit level south, or west branch of Fremont's lode, advanced 2 fms. 1 ft. 11 in.; the lode is smaller within the last few feet, and ground easier for driving—re-set for November to four men, at $62 per fm., being a reduction of $6 per fm. on last month. Also commenced to drive north on this lode from adit, which is set to four men, at $72 per fathom, the lode being large but hard, though kindly.—Adit Level North, on Sewell's Lode: The winze from the bottom was sunk in the month of October 1 fm. 2 ft. 7 in., when it was suspended, owing to the lode becoming small and poor, and we commenced driving on the course north from bottom of winze—set to same men, at $76 per fm.; this is advanced 1 fm. 5 ft., and the lode yielding saving work—re-set for November to four men, at $72 per fm.—Hall's Lode: We broke in this stope 5 fms. 4 ft. 9 in., and obtained $250 worth of ore when dressed. The branch lately worked is now exhausted in the south end, but a branch stands to the north to be worked by two men this month.—Kent's Shaft: The 30 fm. cross-cut west advanced during the month 3 fms. 5 ft. 3 in., intersecting two branches believed to be offshoots from the main lode; the first is worth $100 to $120 per fm., and from which we obtained $100 worth of ore in cutting through it; the second also carries copper, but it is small, and there is quartz with fine purple ore in back of the end, which we think is the underwall of the lode: to open out the ground we have commenced a plat in the shaft at the intersection of the lode preparatory to sinking on the underlie, and driving right and left on its course: this suspends lower driving for two or three weeks; we have placed twelve hands upon it, and re-set it to make it 10 ft. wide by 9 ft. high, epual to two ordinary sized levels, at $116 per fm.—Tilt's Lode: In the north stope we broke 19 fms. 3 ft. 11 in., and obtained $370 worth of ore when dressed; the lode, though large in the north end of stope, is poor for copper, being surface work it is suspended for the winter. In Stobart's lode we broke 5 fms. 0 ft. 10 in., and obtained $150 worth of ore when dressed; the lode in the bottom is small and poor, suspended for the winter. From the lode, the discovery of which was announced Oct. 7, we broke about $30 worth of ore; when discovered in costeaning it had the appearance of a large lode, carrying grey sulphuret and green carbonate of copper, but in breaking the ground it became split up into several branches, and so poor that it was suspended before the end of the month. Total earnings in the month, $900 worth of ore.—Dressing: We sampled as much as we could to forward for shipment this season, estimated at 10 to 11 tons of 38 per cent. But the roads are so bad that it probably will not get to port in time, only 3 tons being yet forwarded. Another pile of 5 or 6 tons of the same quality is in a forward state.

LUSITANIAN.—November 25: Palhal Mine—Basto's Lode: At Taylor's diagonal engine-shaft we have been cutting a plat at the 60, which is now complete. The lode in the plat is worth 2 tons per fm.; we hope to resume the sinking below the 60 fm. level to-morrow. The lode in the 60 has not been taken down since our last. In the 50, west of Taylor's shaft, the lode is improving in appearance, being now worth 1½ ton per fathom. In the 38 west the lode is worth 1½ ton per fathom. In the 8, east of Perez whim-shaft, the lode is split into strings, and in the same level, west of Abel's winze, the lode is of just the same nature. In the adit, west of Perez shaft, the lode is worth 1½ ton per fm. The lode in the winze below the 50, west of Taylor's shaft, is worth 2 tons per fm. In stopes No. 1, above the 50, west of Ernesto's winze, the lode is worth 1½ ton per fm. In the stopes No. 2, above the 38, west of Clondino's winze, the lode is worth 1 ton per fm. The stopes No. 4, below the 28, west of Clondino's winze, is worth 2 tons per fm. In the stopes No. 5, above the 38, east of Clondino's winze, the lode is worth 1 ton per fm. In the stopes No. 6, above the 50, east of Jackson's winze, the lode is worth 1 ton per fm. The stopes No. 7 are worked out. The lode in the stopes No. 9, above the adit level, west of Perez shaft, is worth 1 ton per fm.—Mill Lode: The lode in the 50, west of River shaft, is worth 1 ton per fm. In the 38, east of Taylor's shaft, the lode is 1 foot wide, producing stones of ore. In the stopes No. 10, above the 18 fm. level, east of Den's winze, the lode is worth 1 ton per fm. In the stopes No. 11, above the 38, west of the caunter lode, the lode is worth 1 ton per fm. The stopes No. 14, above the 50, west of River shaft, are worth 1½ ton per fm. The stopes No. 15, above the 38, east of Roderique's winze, are worth 2 tons per fm.—Caunter Lode: We have resumed the driving of the 50 on this lode, west of Taylor's engine-shaft, where the lode is split into branches, and is poor at present, but having an orey lode in the winze just before us, we hope it will soon improve. In the 38, west of Taylor's shaft, the lode is 1 ft. wide, yielding stones of copper ore and lead. In the 18, west of the Mill Lode, the lode is worth 1½ ton per fm. The lode in Luiz's winze, below the 38, west of Taylor's shaft, is worth ¾ ton per fm.—Great Caunter Lode: In the 40, west of Oak shaft, the lode is 20 inches wide, yielding small stones of lead and mundic. In the stopes No. 12, above the 20, west of Oak shaft, the lode is worth ½ ton per fm. The stopes No. 13, above the 20, west of the Slide lode, west of Oak shaft, are worth 1½ ton per fm.—House Lode: The lode in the 30, west of Oak shaft, is unproductive.—Slide Lode: In the 28, west of the Mill lode, there is a branch of copper in the north part of the lode (slide), worth ½ ton per fm.—Carvalhal Mine: In the 10, west of Henrique's winze, the lode is worth ½ ton of lead per fm. We are stoping up a piece in the western end of Henrique's winze, where the lode is producing good stones of lead.

LEAD MINING IN WISCONSIN, NORTH AMERICA.—The State of Wisconsin once formed part of the Indian territory, and not long since has it been formed into a State. Its chief production is lead ores, and worked by poor labouring miners, without capital, and many of these men have amassed fortunes, while others have added homes, with land of their own to live on; thus Wisconsin, by the means alluded to, produces annually ¾ million pigs of lead, of 71 lbs. each. The east and west lodes make solid sheets of lead, varying in size from 1 ft. to 2 in. thick, producing from 75 to 85 per cent. produce. Lodes regular and well defined, and makes its mineral from 7 to 8 feet under surface, and in many places worked to water, leaving the lodes rich going under. The Wisconsin being almost a new State, and thinly inhabited, their chief capital has been employed in the building of houses, cultivating land, and trade, money being worth on mortgage for those purposes from 10 to 12 per cent. The land in many places is very rich, yielding 10 years crop of corn following without any manure. The food for human use is cheap—Wheat, from 60 to 70 cents., or, in English money, 2s. 6d. to 2s. 11d. a Winchester bushel of 8 gallons; butter, 6d. per lb.; cheese, 6d. per lb.; eggs four dozen for 1s.; fowls, 6d. each; geese, 2s.; turkey, 3s.; potatoes, 8 gallons for 1s.; cows with calves, 4*l.* to 4*l.* 10s. each. Miners' wages, $1 to $1¼ per day. The price of lead is greatly increased since the war, worth 2¾d. per lb., or 25*l.* 13s. 4d. per English ton. There is nothing wanting in the State of Wisconsin but a small capital and mining engineering skill, such as is generally used in England, to make mines pay handsomely.

THAMES TUNNEL COMPANY.—Receipts for the week ending Nov. 30, 82*l.* 4s. 3d.; number of passengers, 19,731.

Mining Correspondence.

BRITISH MINES.

ABERDOVEY.—A. Ede: In the 42 the ground in the cross-cut is without alteration, but letting out more water. The stope in the back of the 32, on the main lode, is producing 1 ton per fm.; and that in the 22 is improved, producing fully ¾ ton per fathom. Two men are also employed stripping off some ore ground at the side of the level. The rainy weather we have recently had has been rather against the surface and dressing work, but the machinery is in excellent working order.

ALFRED CONSOLS.—S. Uren, T. Hosking, Nov. 4: Nothing new in the 160, driving east and west of Davey's engine-shaft, on the main lode, for the past week. The 150, driving east of said shaft, on the main lode, is 5 ft. wide, producing good stones of ore, but not to value. The lode in the 140, driving east of the above shaft, is without change. The 120, driving east of said shaft, is 2 ft. wide, worth 5*l.* per fm. The north lode, driving east of cross-cut, in the 140 fm. level, is 1 ft. wide, worth 4*l.* per fathom. No. 1 winze, sinking below this level, on the said lode, is worth 12*l.* per fm. Roberts's stope, in the back of the 140, is worth 15*l.* per fathom. Taylor's stope is worth 10*l.* per fathom. Richards's stope is worth 10*l.* per fm. Floyd's stope, in back of the 120, on the main lode, is worth 15*l.* per fm. No other change to notice.

BEDFORD CONSOLS.—J. Mitchell, Dec. 3: In the middle adit level the north lode is a little improved; it is about 20 in. wide, composed of spar, mundic, and spots of copper ore, in very congenial ground for mineral. The No. 1 south lode is very kindly indeed; it is 18 in. wide, composed of strong mundic, capel, peach, and spots of copper ore, and, judging from its appearance, an improvement at this point may reasonably be expected. No other change to notice.

BEDFORD UNITED.—J. Phillips, Dec. 3: The lode in the 115 west has improved, being 2 ft. wide, and worth from 2 to 3 tons of ore per fm. We have not taken down the lode winze sinking in this level. The same remark will apply to the 103 west. The stopes throughout the mine continue to yield as for some time past.

BORRODALE.—W. Dixon, Dec. 5: The workings on Gill's stage are being wrought by one man and a boy; and we have also four men driving a cross-cut at Walton's stage, to the intersection of Gregory's vein, and have obtained a few pounds of first and second quality wad, and the appearance is the same as in last report.

BRONFLOYD.—J. Lester, Dec. 4: Settings for the month, North Lode: The 40 to drive west by six mem, 6 fm. or the month, at 4*l.* 10s. per fm. The part of the lode this level is opening upon is more favourable for progress. The cross-cut is still driving north through this lode from bottom of winze, set 1fm. to four men at 8*l.*; it is producing good stones of lead ore, embedded in carbonate of lime, of which the lode, at this point is chiefly composed. The rise above the 17 is being worked by the men employed in tramming, when they have not sufficient broken stuff to keep them employed.—South Lode: The level east and west of Thompson's cross-cut, by six men, at 6*l.* 10s. per fm. The western end is looking very promising, and yielding saving work for dressing. Barton's cross-cut, south from new adit, has not yet reached this lode; set to six men, at 4*l.* per fm.; no alteration in the nature of the ground, still I am surprised the lode is not cut.

BRYNFORD HALL.—Dec. 5: Milwr Vein: The character of the ground at the forebreast of the 100 yard level has improved; small lumps of ore are to be had in brown clay, between limestone tumblers, and we look daily for an improvement.—Page's Shaft: The north cross-cut from this shaft continues the same. Bostock's pipes appear a little better than they have done for the last three weeks. Lloyd's vein appears more promising, our workings north-east being all in unbroken ground, and in a good position for ore. Simon's vein appears poorer than usual.—Grainger's Shaft: We are on a very strong north and south vein at the bottom of this shaft, which will enable us to follow on both sides to the vein with very small cost. All other parts of the mine are the same as usual. We shall sample from 10 to 12 tons of ore next week.

BRYNTAIL.—Jas. Roach: There is not much alteration in the 25 west since I saw you. The ground is altering, and small stones of ore are being found. The stope in the bottom of the 10, west of the eastern winze, is still yielding from 15 to 20 cwts. per fm.: in the next 6 feet west I think we shall find the lode greatly improve in quality; the stope alluded to is being carried 6 feet deep. We shall now take up another from the winze 4 or 5 ft. deep, which will apparently produce ore fast. The stopes above the 10 are much as usual, and nothing has occurred in any other part of the mine to notice.

BULLER AND BASSET UNITED.—W. Pascoe, S. S. Bice, Dec. 3: The lode in the 100, east of engine-shaft, is 4 ft. wide, underlying south 2 ft. in 1 fm., mostly composed of quartz, chlorite, mundic, &c.; price for driving 6*l.* per fm. In the 100, west of the engine-shaft, the lode is from 3 to 4 feet wide, the south part of which contains a large quantity of mundic, the north, or footwall part, is showing an improvement; the price for driving is 6*l.* 5s. per fm. The lode in the 80, west of the engine-shaft, is full 4 ft. wide, with an underlie of 2 ft. in 1 fathom, made up of a kindly-looking quartz, chlorite, blende, and some beautiful-looking copper ore; price for driving 5*l.* 15s. per fm. The 60 end, west of engine-shaft, is in an interesting point for development; the appearance of the lode is favourable, occasionally producing stones of good quality copper ore. In reviewing our prospects at the different levels now working, we think that they are encouraging. We have in our western ground a considerable improvement in the nature of the country, while it would appear as having produced that favourable difference in the properties of the lode.

CARADON CONSOLS.—W. Rich, Dec. 3: The Menadue lode, east of the cross-course, is looking very promising, and produces good stones of rich ore; the end west on this lode is much the same as when last reported on—a large kindly lode, with a little ore distributed through it. We have suspended the cross-cut north, and have just commenced to open on the north lodes away from the cross-course. The sinking the shaft is being urged on as fast as possible.

CARDIGAN CONSOLS.—J. Sanders, Dec. 2: In the adit, driving east on copper lode, east of Bog shaft, the lode has improved, and yielding at present good stones of copper ore, and likely for further improvement. The lode in this place is of a very promising character, and I am of opinion that a good mine will be opened out in this part of the sett. At the western trial shaft, which is one mile from the last-mentioned place, the lode is 5 ft. wide, composed chiefly of light clay-slate, intermixed throughout with blende, copper, and lead ore, which is very kindly, and I believe will lead to a good deposit of ore. There is no alteration in any other part of the mine worthy of remark since my last report.

CARMARTHEN UNITED.—R. Sanders, Dec. 2: During the past month the following work has been done:—Plat enlarged, barrow-road cut, penthouse put in, and other preparatory work done, and the engine-shaft sunk 1 fm. 0 ft. 9 in. under the 42. The 42 has been driven north 4 fms. 3 ft., stoped in back of the 42 fm. level 8 fms. 3 feet; the 32 cross-cut driven west 3 fathoms 5 ft. 9 in.; the same level driven north on the caunter 3 fms. 3 ft. 6 in.; stoped in bottom of the 22 south 3 fms. 4 ft. 6 in. Saturday last being our pay and setting-day, the following bargains were set:—The engine-shaft to sink 10 fms., divide, case, and bed-plank the same, put in ladder-road, &c., and put the whole in good working order to draw with the machine from the 52; also cut a plat at the 52 fm. level 12 ft. long, 10 ft. wide, and 7½ ft. high; taken by nine men, as a lump bargain, for 145*l.* The whole of this work I calculate to have completed in three months, when we shall be in a position to push on the 52 north under the bunch of ore; the lode in the shaft has greatly improved in the last 4 ft. sinking, being about 5 ft. wide, spotted with lead throughout, the whole of which is saving work for dressing; the lode is also taking a more vertical dip than formerly, which I consider to be a favourable indication for further improvement. To stope the back of the 42, north of winze, to four men, for the month, at 50s. per fm.; the lode is producing 1 ton per fm. To drive the 32 north, on caunter, to two men, 2 fms., at 40s. per fm.; the lode is 2 ft. wide, producing spots of lead, but not enough to value. I do not expect to meet with much ore in this end for 5 or 6 fms. more driving. To stope the bottom of the 22 south, to two men, for the month, at 50s. per fm.; the lode is producing ½ ton per fathom. A pitch in back of the 32 north, to two men, for two months, at 4*l.* 10s. per ton of 20 cwts., the whole of the slime to belong to the adventurers. I have sampled to-day, computed, 25 tons of our usual quality lead ores. We have more open weather at present, and our surface operations are going on regular.

CARN CAMBORNE.—W. Bishop, jun., Dec. 3: There is no change to notice in any of the tutwork bargains since last report.

CLARA UNITED.—Dec. 4: In consequence of the water being in, the 20 fathom level was the only bargain I could set, which is to drive east towards boundary shaft. The lode contains a mixture of lead and blende ore. I do not expect the water will be in fork to resume the drivage of the bottom levels before Monday next. I have had the cutting enlarged on the east side of the mine, so as to take off the water in case such a flood should occur again. We have began to erect buildings for drawing machine.

CONDURROW.—Dec. 3: Mr. Grylls, the purser, states that—"Since our last meeting the pitwork in Pryce's engine-shaft has proved to be in a much worse condition even than we anticipated; which, together with treachery on the part of the employers, has occasioned a great delay in the opening of the tin lode in the bottom of the mine, and has prevented our carrying out our purpose, of putting down a skip-road in Hope shaft; and has, in our opinion, and in the opinion of such shareholders as we have had the opportunity of consulting, rendered it inexpedient to call the adventurers together earlier than the second Wednesday in February; by which time we hope to have put the mine in thorough working order, to have paid all the ordinary working cost of the mine, and the extraordinary cost of putting a concern, which we hope has no parallel, into a condition to challenge scrutiny, and defy censure. Capt. Bennetts' opinion of the value of the principal points in the mine, is as follows:—Tin Bargains: The sump-shaft is worth 180*l.* per fathom for the length of shaft. The 165 east is worth 150*l.* per fm. The 165 west is worth 80*l.* per fm. The winze under the 155, west of Pryce's, is worth 100*l.* per fm. The stopes in back of the 155, west of shaft, are worth 50*l.* per fm. The stopes in back of the 155, east of shaft, are worth 30*l.* per fm. The winze under the 40, on Landower's lode, is worth 50*l.* per fm.—Copper Ore Bargains: The stopes in the bottom of Landower's lode, at the 50, east of Hope's, are worth 30*l.* per fm. The stopes in the back are worth 30*l.* per fm. The stopes east of Pryce's are worth 40*l.* per fm. The stopes in back of the 10 are worth 20*l.* per fm. The stopes in back of the adit are worth 30*l.* per fm.

CROOKHAVEN.—H. Thomas, Dec. 2: We are making very fair progress in sinking the engine-shaft: nothing is left undone to push down the sinking as fast as possible. The shaft is making a considerable quantity of water, but should it at any moment be required, we have a new lift of pumps on the mine ready to sink with, so as to prevent any delay. The lode in the winze sinking under the 40 is looking very promising indeed; it is gradually getting more sparry, mixed with blotches of rich yellow copper ore, therefore, from present appearances, it is an improving lode, and there is every reason to think it will be productive in depth. This place is also being pushed with as much dispatch as the nature of the ground will admit, in the cross-cut south from the western trial shaft. From the appearance of the ground I think we are not far from the lode. We are driving in a nice elvan, brown spar, gossan, carbonate of lime, and white iron. Had not the champion lode been vertical, it would have been intersected by this time. All the work is going on well and satisfactorily.

CROWLWM.—J. Roach: The lode in the winze is similar in feature to the north lode in Bryntail, and is occasionally producing solid slabs of ore. There must be a large deposit of lead in this ground, which I have no doubt will sooner or later be found.

CUDDRA.—F. Puckey, E. Dunstan, Dec. 5: Tickell's Shaft: In cross-cutting the lode at the 100, west of this shaft, we have driven south upwards of 4 fms., and only now reached the tin part of the lode. How large this part of the lode is we cannot say, as we have only seen it for about 1 ft. wide, and from which we have broken some splendid stones of tin. This is looking well for the eastern part of the mine, and we have every reason to expect this to be the same run of tin, only inclining eastward, that we have at the 60, east of Walker's shaft. Walker's shaft is sunk perdendicular 5 fms. below the 60, and we have now commenced sinking on the course of the lode. No lode taken down in the shaft since last reported. In No. 1 stope, east of Walker's shaft, the tin part of the lode, for 4 feet wide, will yield 2½ cwts. of tin per 100 sacks. In No. 2 stope the tin part of the lode is full 6 feet wide, and will produce about 1 cwt. of tin per 100 sacks. In the lode in the stope in the back of this level, west of Walker's shaft, the tin part of the lode is still 3 feet wide, and will produce 2½ cwts. of tin per 100 sacks. In the 60 end, west of Walker's shaft, the tin part of the lode is still 3 feet wide, of a very promising character, and will produce 2 cwts. of tin per 100 sacks. The lode in the western winze, sinking below this level, for 2 feet wide, is still composed of iron and capel, and producing a little tin, saving work for the stamps. In the winze sinking below this level, east of the shaft, we are still carrying about 6 feet of the south or tin part of the lode; the lode is composed of hard quartz, peach, &c., but poor for tin. We have commenced sinking a winze below the 50, west of Parry's shaft, to communicate with No. 1 stope, for ventilation and advantage for stoping. The lode in the winze, for 4 ft. wide, will produce 1½ cwt. of tin per 100 sacks.

CWM ERFIN.—Dec. 3: The lode in the 45, west of engine-shaft, is 3 ft. wide, composed of dark clay-slate, quartz, and spots of lead ore, but not to value. The lode in the same level, east of boundary, has improved, now 2 ft. wide, with spots of lead ore disseminated throughout. The lode in the stopes over the back of this level, 15 fathoms east of boundary, yields 8 to 10 cwts. of ore per fathom. The lode in the stopes over the back of the same level, 5 fms. east of boundary, yields 8 to 10 cwts. of ore per fm. The lode in the stopes over the back of the same level, 90 fathoms east of cross-cut, yields 12 cwts. of ore per fm. The lode in the 32, east of boundary, is worth 1 ton of ore per fathom. The lode in the stopes over the back of this level, 10 fms. east of boundary, yields ½ ton of ore per fathom. The lode in the stopes over the back of the same level, 90 fms. east of the cross-cut, yields 1½ ton of ore per fm. The lode in the 20, going east of boundary, has very much improved during the past week, and now yields 1½ to 2 tons of ore per fm. The lode in the stopes over the back of this level, 110 fms. east of cross-cut, yields 1½ ton of ore per fm. The lode in the stopes over the back of the same level, 85 fms. east of cross-cut, is 5 ft. wide, worth 8 to 10 cwts. of ore per fm. The lode in the stopes over the back of the same level, 20 fms. east of cross-cut, yields ½ ton per fm. The lode in the 10, east of cross-cut, yields 1 ton of ore per fm. The lode in the stopes over the back of this level, 80 fms. east of cross-cut, yields 15 cwts. of lead ore per fm. We have this day sampled 55 tons of good quality ore.

DALE.—R. Niness, Dec. 4: The appearance of the Pipe vein is about the same as when I last wrote. During the past week we have sunk on the new shaft 5 ft., which is now down from surface 38½ fms.

DEEP LEVEL.—T. P. Thomas, W. T. Harris: Lankshear's level is being pushed on with all speed, very kindly ground, but no lode as yet. Our operations here will be very limited until the spring, when we hope to erect wheel, crusher, and stamps, and resume working in Lloyd's flat, the gravel bed, &c.

DEVON AND CORNWALL UNITED.—T. Neill, Dec. 30: The lode in the engine-shaft, sinking below the deep adit level, looks promising, producing some good stones of ore. In the deep adit level east the ground is hard for progress, the lode being chiefly composed of capel. The lode in the end west of rise, in back of the midway, is worth 2 tons of ore per fathom. At William and Mary the lode in the engine-shaft, sinking below the 10, is about 2 feet wide, producing good stones of ore, and the ground more favourable for sinking. In the 10 east the men are driving by the side of the lode. In the adit level cross-cut south the ground continues favourable for progress. In the 12 fm. level, west of the water-wheel shaft, the lode is 1½ foot wide, composed of capel, spar, peach, black, and yellow copper ore, with malleable copper interspersed throughout the lode.

DEVON NEW COPPER.—P. Hawke, Dec. 4: In sinking the engine-shaft below the 88 the country between the two lodes becomes more than ever diffused with mineral substance. I shall be able to get at the exact angle of the two lodes, and report the point of junction by about the end of the week. The cross-cut to new south lode, at the 88, gradually improves, the capels are diminishing, and the spar increases, and mundic, spotted throughout with rich yellow copper ore, is the product. We have not yet reached the productive part of the leader in the cross-cut.—Great North lode: At the 88 the product so far consists of pretty white spar, accompanied with mundic and spots of yellow copper ore; the water issues abundantly from the extreme point. There is a steady decrease of water at the 78, and we are here desuing the leader, previous to stoping, by which means we shall be enabled to take away the productive part of the same without waste. The engine and pitwork work well.

DULTA.—J. Martyn, Dec. 3: We shall lose no time in erecting the engine just purchased. The newly-discovered lode has turned out much better than I anticipated. The boiler-flues, &c., have undergone a thorough repair, and when the extra engine is erected the old one will be altered to carry 40 or 50 heads of stamps, and enable us to have good and regular sales of tin. The lode recently discovered by the tributers has not been cut in the 15, but I think from its appearance it is Richard's lode; it is 12 ft. wide, all good work for tin. I have no doubt that Dulta, when more developed, will prove to be one of the best mines in the country.

DYFNGWM.—E. Davies, Dec. 4: The Cyfartha new cross-cut has intersected another lode—a caunter; it contains most beautiful lead ore, large grained and solid. This is the most interesting ground to drive through I have ever seen; every 2 or 3 fathoms there is something turning up. There is no doubt but that there are rich courses of ore under what we have already driven through, and this irrespective of the Dyfngwm and Esgair-galed lodes. All the other works are going on well.

EAST BEAM.—J. Webb, jun., Dec. 5: The adit is cleared nearly up to the shaft, and is letting out a large stream of water. We have put the men to sink on the lode intersected by this adit, and I am pleased to report that they are breaking some very goood tinstuff; this is about 150 fms. east of the engine-shaft, and is a most satisfactory confirmation of the value of the lode.

EAST BERTHA.—S. Cock, Dec. 5: In the north cross-cut, at the 30, we are daily meeting with branches of mundic, quartz, and copper ore, dipping towards the great north lode; the end of the cross-cut is letting out more water—a good indication. This lode at surface is from 18 to 20 ft. wide, of a strong masterly character, and being parallel to the Old Virtuous Lady Mine, adjoining, which yielded such immense wealth to the proprietors, we may fairly expect good results upon the intersection of the lode in East Bertha. The driving at the 30 south continues favourable, the ground being highly mineralised, for good deposits of copper ore upon reaching the south, or Lady Bertha lode.

EAST BUDNICK AND MOUNT.—W. H. Reynolds, Dec. 4: The lode in the 17 is improved to 5 or 6 cwts. of lead per fathom.

EAST CARN BREA.—T. Glanville, Dec. 4: In the 50, driving west, the lode is producing 2½ tons of ore per fm., worth 8*l.* per ton. In the 50 east the lode is producing 2½ tons of ore per fathom, worth 8*l.* per ton. The winze sinking below the 40 is down 8 fms., and is 10 fms. beyond the 50 end. In the bottom of the winze the lode will produce 3 tons of ore per fm. In the 40 east the lode is improved, now producing 1 ton of ore per fm. In the 40, driving east from the western shaft, the lode will produce 1½ ton of ore per fm. In the 26 east we have met with a cross-course, and driven 10 ft., but are not through it; close up to the cross-course we have a good lode of ore; therefore, we may reasonably expect ore the other side.

EAST DAMSEL.—Dec. 4: In the cross-cut driving south in the 50, at Collins's shaft, we have not yet cut the lode. Judging from the bearing of the lode cut in Wheal Damsel cross-cut, in the 40, we expect to have about 3 fms. more to drive to intersect it in our level; the ground is very congenial for mineral, and favourable for driving. We have suspended the sinking of the winze in bottom of the 30, at Collins's, and put the men to rise in the back, to prove the lode at the junction of the killas and granite. The lode is daily improving in size, which is composed of spar, flookan, and green carbonate. In costeaning in the eastern part of the sett for the tin lode we have cut several branches, which are producing a little tin.

EAST DARREN.—Dec. 3: The levels and pitches throughout the mine are looking just the same as when last reported. There has not been much done in sinking Taylor's shaft, or in driving the bottom levels, in consequence of the heavy rains, which caused the water to overflow the adit. We have it all out again now, and have resumed working. We sampled this day 77 tons of lead ore.

EAST DEVON GREAT CONSOLS.—T. Richards, Dec. 3: In the 52 we have cut through the lode, and have commenced driving west on the south part for 4 ft. wide, which is composed of capel, spar, prian, iron, and spots of yellow copper ore, being altogether of a very promising character, and the ground by the side being beautiful white killas; driving by three men and three boys, at 3*l.* per fm. In the 52 cross-cut north the ground is very favourable for progress. In the 40 cross-cut south we have intersected a lode from 3 to 4 ft. wide, composed chiefly of a very kindly spar, prian, and mundic, with spots of yellow copper ore and lead. In 2 or 3 fms. driving eastward (which we are engaged in) we shall have another branch fall in with the lode, when an improvement may be expected. The ground is very easy, and driving at 2*l.* per fm. We continue to drive the cross-cut in ground set at 1*l.* 10s. per fm., very congenial for mineral.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Nov. 30: The engine-shaft to sink below the 35, by twelve men, at 30*l.* per fm.; lode varying from 2½ to 3 ft. wide, of quartz, peach, &c., with tin and copper, worth 20*l.* per fm., and we think the lode will improve at the next taking down. The 35 east, to six men, at 9*l.* per fathom; lode being in two parts, that on the south side being 2 ft. wide, worth 10*l.* per fm. for ore and tin, that on the north side being 18 in. wide, producing good ore, about 1 ton per fathom; this is kindly ground. The 35 west, to four men, at 4*l.* per fm.; lode from 18 to 20 in. wide, and yielding 1 ton per fm. The stope above the 35 west, to two men, at 2*l.* 5s. per fm.; lode worth from 5*l.* to 7*l.* per fm. for tin and copper. The 25 east, to four men, at 6*l.* per fm.; lode 18 in. wide, of peach, quartz, and gossan, producing good stones of tin. The winze below the 25 west, to six men, at 7*l.* per fm.; lode 2 ft. wide, of quartz and gossan, and yielding about 1 ton per fm. The filling at 3*l.* 7s. 6d.; the landing at 3*l.* 15s. per month.

— G. R. Odgers, Dec. 4: The different operations are continuing satisfactorily, and I do not see any material alteration more than I think the 35 west is looking a little more promising than it did on Saturday.

EAST GRENVILLE.—(*Special Report* by Captain E. Rogers, of Stray Park).—The engine-shaft is sunk 9 fms. below the 35 fm. level; the lode, which is about 2½ ft. wide, has not been taken down for the last 6 feet in sinking, it contains ore and tin, worth together about 25*l.* per fm.—sinking by twelve men, at 30*l.* per fm. The 35 fm. level is driven east of shaft 6 fms., where the lode is split into two parts, they are together about 2½ ft. wide, worth for tin and copper about 10*l.* per fm.—driving by four men, at 9*l.* per fm. The 35 west is driven west of shaft 20 fms., the last 2 fms. has been worth about 12*l.* per fm.; the present end is not quite so good—driving by four men, at 3*l.* per fm.: in the back of this level there is a winze holed to the 25, where they have just commenced to stope, the lode is worth for tin and copper about 5*l.* per fm.—stoping for 35s. per fm. In the bottom of the 25 west there is a winze sinking 3 fms. below the level, containing a little tin and copper, but not of much value. The 25 end east is driven 40 fms., the last few fathoms has produced good tin in the present end, not enough to value. I would here remark that East Grenville is opening up exceedingly well, when we take into consideration that the bottom of the shaft is only down 40 fms. below surface. They have sold tin and copper to the value of 550*l.*, and have at surface about 200*l.* worth more to sell, which will give an average value of 5*l.* per fm. for all the ground that is opened on the mine.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—J. Phillips, Dec. 5: The lode in the 36 end east is worth 6 tons of copper ore per fm.—ground harder for driving. All other parts of the mine much the same as last reported.

EAST ROSEWARNE.—J. James, Nov. 30: There is no lode taken down in the 55 east during the week; it seems to maintain its size and value. In the 55 west the lode is 1 ft. wide, in hard elvans, worth 7*l.* per fm. In the winze below the 43 west the lode is 15 in. wide, worth 30*l.* per fm. All our other operations are without change to notice.

EAST TOLGUS.—Dec. 4: Redruth Consols Lode: The lode at John's shaft is 1 ft. big, composed of spar, mundic, and good stones of ore. In the 70 west the lode is small and unproductive. In the same level east the lode is 1 ft. big, composed of spar, mundic, and stones of ore. The lode in the stope in back of the 22 east is worth for tin and copper ore 9*l.* per fm. The ground in the 46 cross-cut north is eased a little. In the adit level, west of the new shaft, we are shoding down a piece of the north side of the level, in search of the branch met with in sinking the shaft; the ground is rather hard.

EAST WHEAL RUSSELL.—J. Richards, Nov. 29: Homersham's shaft being down the required depth for a 120 fm. level, a cross-cut is set to be driven north, for the intersection of the lode.—Homersham's Shaft: In the 110 east, west of Frewin's cross-cut, the lode is from 2 to 3 ft. wide, and consists of quartz, mundic, capel, and a small proportion of copper ore. In the 100 east the lode is large, full 3 feet wide, composed of mundic, capel, with occasional stones of black oxide of copper. In the rise in the back of the 100 east, and east of Davis's cross-cut, on the north part of the lode, the lode is unproductive. The lode in the stope in the back of the 100, west of Oats's No. 2 winze, is worth 15*l.* per fm. In the 88 east the lode is 2 feet wide, composed chiefly of capel. The 66 east is again being driven east on a portion of the lode (4 feet wide), which is composed of mundic, peach, quartz, prian, and good stones of ore. In the 88, west of Hitchins's engine-shaft, the lode has become disturbed by slidy ground, and is composed of a mixture of elvan, iron, and capel.

— J. Goldsworthy, Dec. 4: The lode in the 88, west of Hitchins's shaft, is looking more promising, and producing rich stones of grey and black oxide of copper ore. No change in any other part of the mine since last reported on.

EXMOUTH.—J. P. Nicholls, John Nicholls, Dec. 4: The 20 south has been extended but little since last report, the men being engaged cross-cutting west to prove if there are any more lodes in that direction; the cross-cut is in congenial ground, but has not intersected any lode as yet. The lode in the 40 south contains some good stones of blende, but not sufficient to value, it is letting out water freely, and shows kindly indications for improvement. The ground in the 60 north is easier for driving, but unproductive at present. The cross-cut east from the 60 north has passed through a small branch, containing blende, and is expected to reach the east lode shortly. All other parts of the mine are without alteration worthy of notice since last report.

FOWEY AND PAR UNITED.—John Tredinnick, Dec. 5: We have set the engine-shaft to sink by 12 men, at 18l. per fm.; since they have commenced sinking they have cut two or three branches, which are droppers into the main lode. We expect to cut Coleman's lode in about 7 fms.. for which we shall push with all speed; when, from the appearance which this lode presented in the adit, we shall soon open up some valuable tin ground. The engine is working in good style, and will prove the mine to a considerable depth.

FRANK MILLS.—J. P. Nicholls, J. Cornish, Dec. 4: The 84 north has become somewhat stiffer during the past week, but it is still yielding a small quantity of lead ore. The 72 north is almost gone past the slide, and the lode is again forming, which consists of white iron, quartz, and spots of lead ore. We have communicated the 72 rise with the winze sunk in the bottom of the 60, on the western branch, which has effectually ventilated the 60 and 72 fm. levels. We shall now resume the 60 cross-cut west as soon as we can possibly and conveniently do so. The rise in the back of the 60 north, on the western branch, is still holding on productive to the value of ½ ton of lead ore per fathom, but since our last it has become rather harder for rising. We have opened on the lode from the rise in back of the 60, referred to in our last report, and have therefore recommenced taking it away, where we find it very productive; we, however, find it very loose, but by adopting every precaution we hope to make fair progress in taking it away. The stope in the back of the 84 fathom level has rather improved, and the south stope, in the back of the 45 fathom level, has also improved, but the north one, in the back of the latter level, has rather decreased in yield since our last report. Champion's, in the back of the 60, is also yielding rather more ore than at the time of our last report. We have now ten tributers employed in five pitches—four in the back and bottom of the 60, on the east lode, and six in the back of the 72, on the west lode, who are earning fair wages, and raising quite as much ore as we had calculated on. All other departments are progressing much as usual.

GAWTON COPPER.—G. Rowe, Nov. 30: We have been exceedingly busy during the past week clearing stuff, and timbering the 50, and hope to get sufficiently in advance in a few days to draw the ore already broken to surface, and resume working on the lode at this level. The lode in the rise in back of the 36 is worth from 2 to 3 tons of ore per fathom. The stopes in the back of the 50 still continue of the same value as before, now worth 30l. per fm. The pitch in back of the 24 worth 2½ tons of ore per fathom. No ther change.

GOGINAN.—Dec. 3: The lode in the 160, going east of Gilbertson's shaft, is still disordered by a soft channel of ground, but is now letting out a little water, with signs of an improvement. The lode in the pitch over this level, 60 fathoms east of Gilbertson's shaft, yields 14 cwts. of ore per fathom. The lode in the tribute pitch over this level, 40 fms. east of Taylor's shaft, yields 10 cwts. of ore per fm. The pitch over the same 50 fms. east of shaft, yields 9 cwts. of ore per fm. The lode in the pitch over the same level, 60 fms. east of shaft, yields 8 cwts. of ore per fm. The pitch over the 110 yields 6 cwts. of lead ore per fm. The lode in the pitch over the 80, 10 fms. east of Taylor's, yields 12 cwts. of ore per fathom. The pitch over the same, 5 fms. east of Gilbertson's, yields 6 cwts. of ore per fm. The lode in the pitch in back of 60, or deep adit, 180 fms. east of Gilbertson's, yields 7 cwts. of ore per fm. The pitch over the same, 10 fms. east f shaft, on the north part of the lode, yields 12 cwts. of ore per fm. The pitch in back f the 12, below the 60, or deep adit, east of winze, 15 fms. west of Gilbertson's, on the north lode, yields 10 cwts. of ore per fm. The lode in the pitch over the deep adit, east of rise, 16 fathoms west of Gilbertson's, on north lode, yields 7 cwts. of ore per fm. The dressing and all other operations here are going on regularly.

GREAT CRINNIS.—F. Puckey, E. Dunstan, Dec. 5: In the 120, both east and west of the new shaft, no lode taken down for the week; ground still favourable for driving. In the 100 west the lode is still very large, and producing good stones of copper ore. The north, or leader part, is at present disordered by a horse of killas, which we think is not an unfavourable feature in this great lode. In the winze sinking below this level we are still carrying about 6 feet of the north part of the lode, which is composed of soft spar, prian, and peach, and producing saving work for copper ore.

GREAT MOELWYN SLATE QUARRY.—G. F. Goble, Nov. 30: Last week I definitively fixed upon the course the miners in No. 1 adit will in future steer: over the extreme end is raised a long staff, also another pole direct over where No. 2 must proceed to coincide with No. 1 gallery. The slate blocks in the further end of No. 1 cannot be improved in quality, and it is, therefore, the interests of the company to get behind as much of the slate rock as possible, for which purpose the original course is made to curve more northerly, so that a greater area of known good blocks may be brought to light. No. 2, from being so long unworked, had to be substantially timbered, therefore the men there may be said to begin anew, and hence will, in future, steer in direct course since the extreme point of No. 1 is decided upon. By the time this adit reaches about 70 yards, and the chamber from below intersecting it is formed, there will be thousands upon thousands of tons of the finest slate blocks ready for exhuming. No. 8 has just struck the trap exactly at the distance I set them to—280 feet from the mouth, that being 20 feet longer than the length of the adit above; nevertheless, not until this tunnel has proceeded along the trap a distance equal to its magnetic declination, and angle of trap, can roofing be commenced; therefore the further this adit is entered the more slates will eventually be obtained from the upper galleries. No. 9 continues to gradually widen the breech into No. 10 with the few hands therein. No. 10 would, ere now, have pierced through into No. 11 had the men not met with an unforeseen obstacle in the shape of a fault in the trap within a few feet of the adit above, from which the miners are compelled to attempt working round to their left, as there would be nothing gained by merely scrambling upwards to make a small orifice through a place where the same earth must ultimately be worked away. No. 11 gently proceeds upwards, while No. 12 rapidly goes onwards, and will shortly enter the other (if no unforeseen difficulties thwart the labourers there); the slate rocks even up at this high altitude appear very promising, and the laminations are very regular, and in two months the galleries, from 8 to 12, will be ready to furnish any quantity of rough blocks of useful slate. Unless, then, more hands are set to work to prepare the tramways, drums, and other machinery many places will be encumbered with large blocks of stones waiting to be operated upon. If, therefore, you will allow me to hire a few good masons, we will push on the erection of the pillars for the drums, and generally with the inclines and tramways.

GREAT WHEAL ALFRED.—Wm. Bugelhole, John Delbridge, Dec. 4: There is no alteration in the value of any of the stopes since our last report. From present appearances, in a fortnight from the above date all the orey ground that will give a profit to the adventurers will be taken away from Nos. 1, 2, and 3 stopes, in the back of the 220, west of Copper-house shaft. There is no apparent change in the 160 cross-cut south.

GREAT WHEAL BADDERN.—J. Jenkin, Dec. 5: Hill Brothers Shaft: The lode in the 63, driving west, continues much the same for mineral as when last reported. The water from the end is increasing continually.

GREAT WHEAL BUSY.—J. Delbridge, Nov. 30: In the 120, east of Offord's, the lode is much improved since our last report. The 110 is much as last reported. In the 100 there is a good lode. In Nos. 1, 2, and 3 winzes, in the 100, there are still good lodes. The 90, at Kitelee's winze and Mathew's shaft, is much as last week. Other parts of the mine are without change to notice. We have put Boscawen's steam-capstan to work, taken down the hand-capstan, and in the early part of the week shall fix the plunger, and commence to drive below the 30. We sold part of our batch of tin this day, at 63l. and 45l. per ton—two samples.

GREAT WHEAL FORTUNE.—J. Vivian, J. Hoskin, N. S. Miners, T. George, Dec. 5: Main Lode: The lode in the rise in back of the 85 fm. level, east of Harvey's engine-shaft, is 3 ft. wide, worth about 8l. per fm., rising for 10l. per fm. The lode in the 50 fm. level west of Blue-burrow shaft on the north lode, has been worth for the last 2 fms. driving 7l. 10s. per fm.; price for driving 4l. 10s. per fm.—Carnmeal lode: Painter's engine-shaft is sunk 2 fms. below the 78; the shaftmen are engaged in cutting ground for bearers and cistern, preparatory to fixing a new plunger lift at this level; when this is completed we shall immediately commence to cross-cut the lode, and, judging from the rapid improvement which has followed this lode from level to level as it is being developed, we may reasonably expect a better lode here than has been seen hitherto in any one of the levels above. The lode in the 68 fm. level, east of Painter's engine-shaft, is worth 15l. per fm.; driving at 4l. 5s. per fm. The lode in the stopes in the back of this level is worth 45l. per fm.; price for stoping 3l. per fm. Hoskin's shaftmen are engaged in altering the pitwork, and fixing drawing-lift at the 68 fm. level. The lode in the 68 end, west of Hoskin's, is considerably improved within the last 6 ft. driving, worth at present 25l. per fm.; price for driving 4l. 5s. per fm. The lode in the stopes in the back of this level is worth 30l. per fm.; price for stoping 3l. per fm. The lode in the 68 fm. level, east of Hoskin's, is yielding good stones of tin. The lode in the 58, west of Hoskin's, is worth 15l. per fm.; price for driving 4l. 10s. per fm. The lode in No. 1 stope, in the back of this level, is worth 14l. per fm.; price for stoping 3l. per fm. The lode in No. 2 stope is worth 15l. per fm.; price for stoping 2l. 15s. per fm. The lode in the 58, east of Hoskin's, is 3 ft. wide, and of a very promising character, producing stones of tin. The 48 end, east of Hoskin's, is suspended for the present. The lode in the 36 fm. level, west of Crotch's, is 4 ft. wide, producing a little tin. Our tribute department is looking well; we have 48 pitches working, at an average tribute of 9s. in 1l.; these continue to yield a fair quantity of tin.

GREAT WHEAL MARTHA.—H. Rickard, Dec. 5: I find from measurements yesterday, that we have about 6 fms. 3 ft. more to drive in the 52 fm. level, towards the lode, before we reach it, the ground being favourable for driving. The stope in the back of the 40 fm. level, east from cross-cut, is yielding much the same for copper ore as for some time past. Thomas's shaft is still in good ground by the side of the lode, and will soon reach the depth of the 40 fm. level, where we are laying a tramroad in the 40 fm. level east, it being cleared upwards of 45 fms., and not yet reached the present end; the lode shows a good appearance at the extreme point seen. The 20 fm. level west is suspended for the present, and a rise being put up towards the 10 fm. level for ventilation, the lode being worth 20l. per fm. The tribute pitches, upon the whole, are not looking quite so well as they have for some time past. Yet yielding large quantities of copper ore. We are busily engaged in hauling, dressing, and washing for next sampling. The machinery is in first-rate working trim.

GREAT WHEAL VOR UNITED.—T. Gill, F. Francis, S. Harris, Dec. 3: In the 152, driving east of Metal engine-shaft, the lode is about 2 ft. wide, worth 130l. per fm. In the 152, driving west of Metal engine-shaft, the lode is 1½ ft. wide, worth 35l. per fm. In the 142, driving east of Metal engine-shaft, the lode is 5 ft. wide, worth 40l. per fm. In the 142, driving west of Metal engine-shaft, the lode has been disordered for some fathoms by the influence of the slide. All the other parts of the mine are looking much the same as last reported. We are making good progress in fixing the pitwork at Ivey's shaft.

GWDYR PARK.—Capt. Smith, Dec. 5: We have taken down the lode in the deep adit, which is greatly improved, and the ground is a little easier.

HARWOOD.—J. Race, Nov. 29: In the cross-cut north we have cut part of No. 1 vein, and have good stones of ore at the bottom of the limestone. I think it will be best to continue the cross-cut at present, as I expect the best part of the vein is yet north. The men at Dry Gill offer to take an ore bargain at 50s. per bing (8 cwts.)

HAWKMOOR.—J. Richards, J. T. Phillips, Dec. 3: The lode in the stopes in back of the [illegible], east of Rowe's rise, is worth 1½ ton of copper ore per fm. We sampled on riday last copper ores computed 30 tons.

HERODSFOOT.—T. Trevillion, Dec. 4: The lode in the 137 is 1 ft. wide, yielding stones of lead, and I am expecting a little improvement in this direction shortly. The lode in the 127 is 2 ft. wide, and will yield 8 cwts. of lead per fathom. There are four stopes working in the back of this level, yielding on the average 9 cwts. of lead per fm. The lode in the 117 is 2 ft. wide, and will yield 10 cwts. of lead per fm. There are two stopes working in back of this level, yielding 10 cwts. of lead per fm. The lode in the 106 is 2½ ft. wide, yielding 12 cwts. of lead per fm. There are six stopes working in the back of this level, producing on the average 9 cwts. of lead per fathom. We are not driving our 70 or 80 fm. levels, owing to my soon expecting to communicate in this direction with the new shaft, when we shall be able to drive them to a greater advantage than at present. Our new shaft is down 7 fms. under the 50; the ground continues of the same favourable character as for some time past. All our machinery is in good trim, and the mine throughout in a very satisfactory state of working. We sold our 85 tons parcel of ores on Saturday last, which fetched 28l. 1s. 6d. per ton, realising 2386l. 7s. 6d. This is the greatest amount of sale ever made in this mine at one time. We shall sample in a few days 50 or 60 tons of seconds, and I hope our next crop parcel will be 85 tons, and, should it bring a similar price as the ores just sold, it cannot fail making our finances first-rate.

HERWARD UNITED.—Dec. 5: Page's vein (No. 1) is still hard, without any improvement. The sump on Page's (No. 2) vein is down 10½ yards below the 86 yard level, and the main vein is within 2 feet to Page's vein (No. 2), with a little ore on both sides; we look for an improvement. Page's shaft, in the common, is down 64½ yards rom surface to the lodge: it has been sunk in unbroken ground 2 yards below the lodge. Our progress with the sinking is favourable. The ground east from Ward's shaft appears promising. All other parts of the mine are the same as usual. We shall sample from 15 to 18 tons of ore next week.

HINGSTON DOWN CONSOLS.—Thos. Richards, Dec. 4: There is no change in the 100 west. The rise in the back of this level, near the cross-course, is improved, worth at present 40l. per fm. The 85 west is worth 15l. per fm., and promising improvement. The winze in the bottom of this level will produce 9 tons of ore, worth 72l. per fm. The rise in the back of this level, against Bailey's engine-shaft, will produce 7 tons of ore, worth 50l. per fm. Nothing new at any other point.

HOLMBUSH.—Dec. 3: In the 175, east of shaft, no lode has been taken down since last reported; then valued at 10l. per fm. The winze sinking below the 160, west of the lead lode, is improved; the lode is worth 40l. per fathom. The rise in back of the 145, on the lead lode, is yielding good stones of lead.—Flap-jack Lode: The 40, west of Wall's shaft, has a better appearance than hitherto; the lode is letting out more water, and yielding stones of copper ore. In the 20, east of shaft, the lode is worth 3 tons per fathom. No lode has been taken down in the 110 fm. level since last reported. The adit level east is looking better, and from the appearance we expect ore shortly. We are getting on satisfactorily with the dressing for the next sampling. The tribute pitches throughout the mine are producing fair quantities of copper ore. All other places are much the same as reported for the meeting. The copper ore weighed off last Friday was 287 tons 12 cwts.

KELLY BRAY.—S. James, Nov. 30: The lode in the 75 east is about 3 feet wide, yielding 4 tons of ore per fm., worth 5l. 10s. per ton. We have opened in the back of the above level from 9 to 10 fms. of ground, which will average in value, as is above stated, 20l. per fathom, and whole to surface in the direction of the dip of the shoot of ore, which is generally met with in this mine; and, if the same prospects continue, the upper levels must be resumed shortly. By so doing, there is every chance to lay open a lasting and profitable mine eastward. The lode in the 35 east is 1 ft. wide, producing stones of good ore, opening tribute ground. The pitches generally throughout are yielding the usual quantity of ore.—Eastern Mine: The lode in the 70 east is about 2 ft. wide, and inclining more south than it hitherto has, composed of capels, quartz, mundic, and spots of ore, with a favourable underlie. The lode in the 60 east is poor at present, but the ground is of a favourable character, carrying patches of elvan, mixed with mica. We weighed off on the 29th inst. 78 tons 13 cwts. 2 qrs. of ore, and we are dressing ore for the next sampling with all possible dispatch.

LADY BERTHA.—Capts. Harpur and Metherell, Nov. 30: To-day is our pay and setting for December, the particulars of which will be forwarded to you in due course. The different ends, stopes, pitches, &c., presents much the same appearance as for some time past.

— Captains Harpur and Metherell, December 5: No alteration in the appearance of the 53 fm. level east. In the same level west we are now cutting in north through the lode, which is large and hard, composed of quartz, mundic, iron, and capel, mixed with ore. The lode in the 41 east is about 4 ft. wide, letting down some water; when last taken down it was composed of peach, quartz, mundic, and ore. The stopes in the back of the 41 west are worth about 4 tons of ore, or 12l., per fm., the lode being 6 ft. wide, composed of quartz, mundic, and ore. In the 30 east the lode is now over 5 ft. wide, composed of peach, mundic, quartz, and ore, worth 2 tons, or 6l., per fm., and likely, from present appearances, for an improvement shortly. The lode in the winze sinking below this level is between 3 and 4 ft. wide, composed of peach, mundic, and ore, worth about 2 tons, or 6l., per fm. We have suspended all operations in the 20 east for the present. In the 10 fathom level east, the portion of the lode which we are carrying, about 2 feet wide, is composed of quartz, mundic, peach, iron, and ore, worth 5l. per fathom. The tribute department is looking very well; the different pitches are yielding a fair quantity of ore.

LLYWERNOG.—Jas. Lester, Dec. 4: The 40 wheel-pit will be finished to-morrow evening, ready for the masons to begin building. I have let the quarrying and carriage of the stone from the quarry to the wheel-pit, at 1s. 3d. per cubic yard.

LONG RAKE.—Dec. 4: The lode in the shaft is rather hard, consequently poor for lead. The 48 east has fallen off in value since last report; at present it is 2 ft. wide, speedy to drive in, and producing detached stones of lead. The stope in the winze sinking below the 48 east is from 2 to 3 ft. wide, producing very good dressing work, and if it continues will be favourably reported on in my next. The stope over this will produce 6 cwts. per fm.; at present the lode is small. All other things go on as usual.

MAUDLIN.—W. Tregay, J. Tregay, Nov. 30: We are getting on well with the sinking of the engine-shaf tbelow the 50; the lode is not at present in the shaft, but only branches and droppers of yellow copper ore, and the killas being very congenial for copper ore we expect good results on reaching the next level. In the 50 west the run has not yet been got through.

MOLLAND.—T. Bennett: The lode in the engine-shaft, sinking below the 52, is 1 ft. wide, producing 1 ton of ore per fm. for length of shaft; set to six men, 1 fm., at 18l. The ground in the cross-cut south, in the 42, is easy for driving; set to two men, 1 fm., at 2l. 5s. The lode in the 32 east has become softer, and I think more promising than last reported, producin good stones of ore; set to four men, 1 fm., at 5l. 5s. The end men have stoped a few feet of ground in back of the level in the past month, where the air was dead in the end; the stopes in back of the level, where the men were stoping last month, having become poor, I have removed the men to another place in the back, where the ground is easy, and the lode will produce 1½ ton of ore per fathom; set to six men, 1 fathom, at 2l. 10s.

NANTY.—Dec. 2: In driving north from boundary line, in top level, the lode is from 3 to 5 ft. wide, rather poor at present. In the 6 fm. level, north of boundary line, above the top level, the lode yields about 10 cwts. of ore per fm. In the 34 fm. level stope, north of the long rise, above the top level, the lode yields 12 cwts. of ore per fm. The lode in the 27 fm. level stope, north of long rise, above the same, yields 11 cwts. of ore per fm. In the 20 fm. level stope, north of long rise, above the same, the lode is 6 feet wide, and yields about 10 cwts. of ore per fm. We have set a stope in bottom of the top level, south of Mason's winze; lode 3 ft. wide, worth 10 cwts. of ore per fm. The lode in the roadway level, driving north from boundary line, is 3 ft. wide, worth 15 cwts. of ore per fm. We have set a new level, midway between the roadway and deep adit levels, commencing from the 60 rise, north of long rise, to open the ground to the best advantage for stoping. In the deep adit level, driving north from boundary line, we are still in a strong lode, and the part we are in yields good stones of ore. This month we have put the men to strip down the lode to its full width. We intend sampling 30 tons of ore on Monday next.

NANT-Y-IAGO.—J. P. Roach, Dec. 2: The 10 is driven west of mill 7 ft.; the lode is at present very wide, yielding 1 ton of blende per fm., but it shows symptoms of becoming more productive for lead in future. The stope above the 10 is 7 fms. in length; in this we have now reached the bunch of ore you saw when underground here, therefore we shall now break ore fast; latterly we have been driving in it for a stope, consequently we could not break ore nearly so fast as we can now. In the stope east of shaft, between the adit and the 10, west of cross-course, the lode is 4 ft. wide, consisting of sulphur and detached stones of lead ore and blende, producing of the latter 1 ton per fm., or upwards. In driving west of cross-course in search of the lode we have seen several branches of flookan, sulphur, strings of carbonate of lime, and spots of ore, but not yet anything sufficiently defined to enable us to report that we have found the lode, but hope soon to apprise you that we have reached the desired object.

NORTH BASSET.—T. Glanville, G. Davey, Dec. 4: In the winze under the 92, west of Grace's shaft, we are down to water; we have put the men to drive the 92 west, where the lode is 18 in. wide, chiefly composed of spar. In the 82 the lode is 1 ft. wide, producing stones of copper ore. We have holed the winze from the 30 to the 42, on the north lode. The men are now engaged driving the 42 west, in which the lode is 18 in. wide, composed of spar, mundic, and copper ore—a promising lode.

NORTH BULLER.—J. B. Delbridge, Nov. 29: We have set the 78 to drive north to six men and one boy, at 7l. 7s. per fm. We have 4 ft. more to sink King's shaft to the 55; at that point we shall cut a plat, case and divide the shaft to that level, and sink to the 78 with all dispatch, having 13 fms. 1 ft. 7 in. to be at the 78 in the old mine; the lode in the shaft is from 10 in. to 1 ft. wide, producing at times good stones of copper ore. We purpose taking the 100 fm. level plunger to the 78, and draw from that level. The machinery is working well, and hope to have less water to draw by the change in the pitwork.

NORTH MINERA.—T. P. Thomas, W. T. Harris: The engine-shaft is down 4½ fms. below the 35; the ground is more favourable for sinking than it has been, with a promising joint all across the shaft, and letting down a quantity of water. The eastern shaft is down 14 fathoms from surface, and the lode is well defined and producing good lead. In Wilson's shaft the level driving north has much improved, having a solid leader of lead ore 4 inches wide on the footwall, similar to the one we have had so productive at Pugh's. The level south is looking promising, but not rich, producing about ½ ton of lead ore per fathom. The level driving east of Charles' shaft, below the 35, is as productive as ever. The level driving south, on the new or caunter lode, is also as good or better than ever. The flat is producing about the usual quantity of lead ore. We are getting on with the dressing as fast as the weather will allow, but the frost is a great hindrance to our progress. We sampled yesterday 20 tons of ore, and if the weather will allow us hope soon to sample again.

NORTH PORTHILLY.—Geo. Rickard, Dec. 2: The arrangements for the erection of the engine, &c., are being carried out with economy and dispatch. The prospects of the concern are just as last reported.

NORTH TRESKERBY.—F. Pryor, F. Hosking, R. M. Kitto, Nov. 30: Setting Report: We have this day set the cistern-plat, &c., to cut in the 67, which will take about a week to accomplish; when completed we shall immediately commence sinking below the 67 with all possible speed. The 67, to drive east of sump-shaft, by six men, at 10l. per fm.; we are daily expecting a change in this level, as it has since the last meeting of the adventurers drained the winze in the bottom of the 57, and also enabled us to resume the sinking of Highburrow shaft, which is set to six men, at 5l. per fm.; the lode in this shaft is worth for copper 20l. per fathom. The 57 is extended east to within 4 fms. of Tresidder's shaft; set to-day to three men and three boys, at 3l. per fathom; here we may remark that the ground has lately undergone a very considerable change for the better, having entirely drained Tresidder's shaft; the lode in this end is worth 12l. per fm. Tresidder's shaft is set to sink below the 47, by six men, at 5l. per fm.; the lode is 4 feet wide, and worth for copper 17l. per fm.; the stope in the back of the 57, east of Highburrow shaft, is worth 25l. per fm.; set to six men, at 35s. per fathom. The 57, to drive west of sump-shaft, by two men and two boys, at 6l. per fm.; the lode is 3 feet wide, and producing occasional stones of ore. The 47, to drive west of sump-shaft, to two men and two boys, at 7l. per fm.; the lode at present unproductive. The 47, to drive east of Tresidder's shaft, by three men and three boys, at 4l. 4s. per fm.; the lode is 4 feet wide, and will pay for driving; the stope in the back of this level, by two men, west of the shaft, set at 45s. per fm.; the lode worth 20l. per fm. The 36, to drive east of Tresidder's shaft, set to three men and three boys, at 5l. 5s. per fm.; the lode is 18 in. wide, poor. The adit level, to drive east of Tresidder's shaft, by two men and two boys, at 3l. per fm.; the lode is presenting a better appearance than for some time past, and we look forward for a still further improvement. We have sett No. 1 shaft to cut down from surface to the shallow adit, by four men, at 15s. per fm.; also, set No. 2 shaft to sink from surface, by four men, at 2l. 10s. per fm.; and a cross-cut to drive north from Water's shaft, to two men and two boys, at 3l. per fm. We sold on Thursday last 2046l. 9s. worth of copper ore, and also 120l. 10s. worth of tin. We consider our prospects, on the whole, a little more cheering than at the last meeting. Our pay and setting passed off satisfactorily.—P.S. The boundary shaft is completed to the shallow adit level, the lode is worth 12l. per fathom.—J. BROWN.

NORTH WHEAL ROBERT.—J. Richards, Nov. 29: In the 42 west, east of Crowle's winze, on No. 1 south lode, the lode is more promising; it is 4 ft. wide, and yields saving work. In the 30, east of Davis's rise, on the south part of the lode, the lode is worth 2 tons of ore per fm. In the 30, west of Davis's rise, on the south part of the lode, the lode is worth 1 ton of ore per fm. The lode in Rich's rise and stope, in the back of the 20, is worth 2 tons of ore per fathom.—Trial Shaft: In the 42 west, and west of Scoble's cross-cut, on the south part of the main lode, the lode is showing improvement, and is yielding good stones of ore. In the 30 cross-cut south good progress is being made. We hope to complete the sampling of about 200 tons to-morrow.

— W. Godden, Nov. 30: We have sampled this morning as follows:—No. 1 parcel (computed) 92 tons; No. 2, 75 tons; No. 3, 37 tons=204 tons. On the whole, the mine is looking better, and likelyt eimprove.

NORTH WREY.—T. Kemp, Dec. 5: The cross-cut from the 38 is extended east towards new shaft about 10 fms., and, according to the dialling by Capt. Davey, the men will have only about 6 ft. further to open to be under the perpendicular; this they will do in a very few days. The end is letting out water very freely, but not enough yet to drain the shaft. If when we get under the water should not come through to enable us to resume sinking the shaft, we can soon put up a rise, as the ground is easy for progress.

OKEL TOR.—Wm. B. Collom, Dec. 4: In the 80 east the lode in the end will yield 7 tons of ore per fm.; the two stopes in the back of this level will yield on an average 4 tons of ore per fm. In the cross-cut south at the 50, branches of copper ore are met with in driving; this we consider a favourable indication for meeting with a productive lode in this direction. The various pitches, which are working at an average tribute of 10s. in 1l., are generally looking well. We sell this month 110 tons of ore, which was raised in November.

PANT-Y-PYDEW.—R. Nankivell, Dec. 5: It is decided to have an engine at Kendrick's shaft; we have let a contract to six men to enlarge the shaft, and to put in all timber required, ladders, &c., at 2l. 10s. per yard, from the surface to its present depth, which is about 60 yards.

PEDN-AN-DREA UNITED.—W. Tregay, T. Delbridge, Nov. 30: The 100 end east is worth 40l. per fm. The 100 fm. level winze is worth 40l. per fm. The 100 end east produces good stones of tin. The 100 end west is worth 9l. per fm. The 90 end west is worth 8l. per fm. The 80 west is worth 12l. per fm. The 90 end, west on Skimmer's produces good stones of copper ore, and looks more promising than for some time.—Street and Bragg's: The 47 east is poor.

PENDEEN CONSOLS.—Wm. Eddy, J. Warren, Nov. 30: The lode in the shaft is about 2½ ft. wide, worth 4 tons of ore for the length of the shaft. We have not taken down the lode in the 130 or 118 this week, but intend to take down the lode in each of these ends next week, when you shall be fully advised. The stopes throughout the mine are without any change to notice.

PRAED CONSOLS.—R. Stevens, Dec. 4: At the new shaft there is no change of importance; the last taking down of the lode did not yield quite so well as that previously taken down; but lodes are not always alike, and the next taking down may be better. The ground in the cross-cut at the 35 is somewhat harder, now driving at 3l. per fm. The 35 east is without any change of note; the price for driving should have been 3l. 5s. per fm., and not 6l. 5s., as appeared in the last report.

PROSPER UNITED.—W. H. Martin, W. Millett, Dec. 5: We beg to say the sumpmen at Louisa's are making good progress in dividing and casing down the engine-shaft, and will soon make it complete to the 40 fm. level, after which all the stuff in this part of the mine will be discharged by virtue of the winding-engine. At Hosking's engine-shaft, the sumpmen are cutting ground, and fixing bearers to make the forking lift secure. In the 40 fm. level east of Louisa's shaft, the lode is 3 ft. wide, producing good work for tin, but not quite as valuable as last reported. The lode in the 30 fm. level east of ladder-road shaft, is still unproductive, but we anticipate an improvement in this end shortly, as the elvans are now making near the lode on the north side. The lode in the 30 fm. level west of ladder-road shaft is still improving, both in size and quality; it is now 4 ft. wide, and will yield over 6 tons of copper ore per fm.; a part of the lode on the north side is also producing rich work for tin; altogether it is a very valuable lode, which we consider an important discovery, making all in whole ground. We have commenced driving the 20 fm. level west of ladder-road shaft; the lode during the week has increased in size from 1 ft. to 18 in. wide; this end is only a few fathoms behind the 30, where the lode so much improved. In the 30 west of Henry's shaft, the lode is 2 ft. wide, yielding work of better quality for tin. There is no material change in any other part of the underground operations.

REDMOOR.—T. Taylor, Dec. 3: The ground in the 40 fm. level winze is good fo sinking, but the water is rather quick. No alteration in the 70 fm. level rise. We have just cut Pomeroy's cross-course in the 80 west. As soon as we have reached the western heave we shall take down the lode. No important change in the tribute ground.

RHOSWYDOL AND BACHEIDDON.—Dec. 3: In the 15 west the ore is scattering over the lode in the stope behind the end, but does not look so compact and orey as a fortnight ago. The other stope to the east of this looks well, the run of ore dropping from the south side into the lode continues to produce some fine work; the other stope in the back of the 15, and the stope in the back of the 10, are without any change. The 70 east continues orey in driving. Last week's driving made about 10 cwts. per fm. We have a further improvement in the 65 east, in the end and stope, especially in the stope; several droppers from the south fell into the lode, and considerably increased its productiveness; I wish all parts of the mine looked as well as the 65. To-day I have put in eight men to stope instead of four. The shaft sinking on the new discovery has been retarded by heavy and constant rains, especially on Tuesday last. The heavy floods nearly swept away our dressing-floor; such floods we never saw here before, nor has the oldest inhabitant seen such: the actual damage is trifling. I shall cease working in the shaft at present. The upper level continues to do well. The road level is in a kindly-looking lode, and will improve as we drive west.

RIBDEN.—R. Niness, Dec. 5: I am glad to say we have completed the repairs, and the water will be out of the bottom, so as the men may commence working in the 70 fm. levels early this evening.

ROSEWARNE UNITED.—E. Carthew, Dec. 5: In the 90, west of footway-shaft, the lode is 2 feet wide, producing a little ore. In the 90, east of Jennings' shaft, the lode is 2½ feet wide, yielding good stones of copper ore. The 80, west of footway, is unproductive. In the 80, east of Jennings's shaft, the lode is 3 feet wide, yielding 1 ton of good copper ore per fm. In the 74, west of Richards' shaft, the lode is 2 feet wide, impregnated with ore. In the 58, west of Richards', the lode is 3 feet wide, producing above ½ ton of copper ore per fm. In the 46, east of Lane's shaft, the lode is 2 feet wide, yielding a little ore. In the 34, east of Wellington's, the lode is 2½ ft. wide, producing stones of copper ore.

ROUND HILL.—A. and R. Waters, Dec. 4: The sump-winze sinking below the 62, north of engine-shaft, is down about 2 fms.; the part of the lode being carried is 2½ ft. wide, and worth 12 cwts. of lead ore per fm.; we calculate that the main ore course at this point is upon the footwall of the lode, and which we shall get into as we sink; we like the general character of this lode very much. No. 1 stope, in back of the level, north of Belton's winze, is yielding 30 cwts. of lead ore per fm.; No. 2 stope, south of the said winze, is worth 20 cwts. of lead ore per fm.; No. 3 stope, south of No. 2, is worth 15 cwts. of lead ore per fm.; No. 4 stope, south of Bennett's sump, is worth 1 ton of lead ore per fathom. The stope in back of the 62, south of the engine-shaft, is worth 12 cwts. of lead ore per fm. The cross-cuts, north and south of shaft, are suspended. The tribute department is yielding some good ore stuff. We sampled on Monday last a parcel of crop ore, computed, 25 tons.

SCHULL BAY.—Wm. Thomas, Nov. 30: We commenced on Friday morning about the lifts, and fixed bearers and cistern, and completed the lift from the deep adit, 9 ft. below the 16, on Saturday night. We took advantage of the engine being idle, and cleaned the boiler, made some new joints, refilled it, and had the engine at work on Sunday evening, and the water in fork on Monday morning. The shaftmen have put in penthouse in the 16, and are now engaged dividing and casing the shaft, which I expect will be finished in a week; we have, therefore, a first-rate engine-shaft sunk from surface 43 fms. on the underlie of the lode, 12 ft. by 6, and the engine and pitwork in complete working order. The whim-shaft is well adapted for machine kibbles or skips, and having cut a plat at the 16, and sunk 9 ft. below it, we shall be ready to resume the sinking the moment the dividing, &c., is finished, and from the kindly appearance of the lode in the engine-shaft we shall, no doubt, lay open valuable ore ground; we shall be also able now to stope the high ground to advantage from the 16 to the deep adit, and discharge all the stuff through the engine-shaft. We have to-day set a plat for the sump winze in the 16 to four men, lump bargain for 5l. The stope east of No. 5 winze, 16 fm. level, four men, at 4l. per fm. The stope east of No. 5 winze, 8 fm. level, four men, at 3l. 15s. No. 3 whim-shaft, under the 8 fm. level, six men, at 8l. 10s. per fm. The stope on Thomas's lode, two men, at 3l. 10s. per fm.; we got some good specimens of malachite to-day from this stope. The other stopes, I expect, will produce a fair quantity of ore.

SORTRIDGE CONSOLS.—R. Jackson, Dec. 5: In the 62 west, and west of the western cross-course, no lode has been intersected. In Williams's rise, in the back of the 40 fathom level, on the north part of the main lode, the lode is 2 feet wide, worth 1 ton of ore per fathom. In the 50 fathom level east, on the south part of the main lode, the lode is 2 feet wide, yielding good stones of ore. In Gilbert's winze, sinking below the 50 fathom level, on the south part of the main lode, west of Crew's cross-cut, the lode is 1 ft. wide, yielding a little ore, worth nothing to value. In Mayn's stopes, in the back of the 50, on the south part of the main lode, the lode is worth 1½ ton of ore per fm. In Crew's stopes, in the bottom of the 40, on the south part of the main lode, the lode is worth 2 tons of ore, or 20l. per fm. In Gribbon's rise, in the back of the 40, on the south part of the main lode, the lode is worth ½ ton of ore per fm. In Eva's rise, in the back of the 40, on the south part of the main lode, the lode is worth ½ ton of ore per fm. In Stanton's stopes, in the back of the 40, on the south part of the main lode, the lode is worth 3 tons of ore, or 30l. per fm. In the 50 east, on the north part of the main lode, the lode is 1 ft. wide, yielding good stones of ore. In the 30 east of the eastern cross-course, on the south part of the main lode, the lode is 3 ft. wide, composed of spar, mundic, capel, and stones of ore. In the 20 west of Arthur's cross-cut, the lode is 1½ ft. wide, composed of spar, capel, mundic, and spots of ore. In Rowe's stopes, in the back of the 40, on No. 2 south lode, the lode is worth ½ ton of ore per fm. In Blanchard's stopes, in the back of the 50, on No. 2 south lode, the lode is worth 1 ton of ore per fm. There is no change to notice in any other part of the mine.

SOUTH CARADON WHEAL HOOPER.—W. C. Cock, Nov. 30: In the 90 east we have cut the cross-course or a part of it; we are, however, doubtful as to its being the leader, and shall, therefore, drive about 6 ft. further, in order to be satisfied on the point before commencing the cross-cut north to cut the No. 7 and intermediate lodes; set to six men, at 15l. per fm. The 90 west is set to four men, at 13l. per fm. The ground in the rise above the 62 is just the same as when last reported, but in consequence of the deadness of the air we find it necessary to advance the price; set at 11l. per fm. The 47 fm. level cross-cut is still in elvan, but I think we are nearly through it; set at [illegible] per fm.; last price 15l. The winze below the 47 is without any particular change.

SOUTH CARN BREA.—T. Glanville, Nov. 4: Our underground operations are progressing as for some time past, and the lode producing its usual quality tinstuff.

SOUTH CRENVER.—E. Chegwin, Dec. 3: The lode in the flat-rod shaft is 1½ foot wide, producing stones of ore. The 105 east produces 1 ton of copper ore per fm. No change in the tribute pitches.—South Mine: The 51, east of the cross-cut, on the middle lode, produces good stones of tin. The 51 west has improved, and produces good tinstuff. The lode in the winze in bottom of the 32 is worth 8l. per fathom.

SOUTH DARREN.—J. Boundy, Dec. 3: Saturday last being our pay and setting day, the following bargains were set:—The 80 end to drive west from the engine-shaft by six men, at 8l. 10s. per fm.; the lode is 3 ft. wide, valued at 10 cwts. of lead ore per fm. The 80 end to drive east from the shaft by six men, at 9l. per fm.; the lode is 3½ ft. wide, containing clay-slate, copper, and lead ore, valued at 12 cwts. per fm.; the lode at this point presents a very promising appearance. To sink a winze below the 70 east by four men, at 7l. per fm.; no lode has been taken down. The 70 end to drive east by six men, at 8l. per fm.; the lode is 2½ ft. wide, valued at present at 1 ton per fathom. To sink a winze below the 60 east by six men, at 9l. 10s. per fm. We continue to sink on the south part of the lode. This winze is now down 8½ fms. I hope to have it down to the required depth by the end of this month. The 20 end to drive west from the air shaft by four men, at 120s. per fm.; the men will now commence clearing their stuff and take down the lode. The 30 east on the north lode, is suspended for the present.—Tribute: Seven tribute pitches let to 24 men, at tributes varying from 7l. to 11l. per ton, they paying all cost. I expect to let more pitches in the course of a few days. We are pushing on the surface work as fast as the weather will admit of. At present it is freezing very hard. All the machinery is in good working order. I will forward the monthly form in a day or two.

SOUTH DOLCOATH AND CARNARTHEN CONSOLS.—W. Roberts, Dec. 4: In the 50 we have commenced driving east on the caunter lode; it is nearly 3 feet wide, producing stones of good ore—tribute ground.

SOUTH LADY BERTHA.—R. Unsworth, Dec. 4: The 40 is driven east of cross-course 50 fms., the lode averaging 2 tons of copper ore per fm.; in the end of this level the lode will yie ; tons of copper ore per fm. In the stopes in the back of the 40, eas of Leman's rise, the lode is 2½ feet wide, worth full 3 tons per fm.; west of Leman's rise the lode is 3 feet wide, worth 2 tons of copper ore per fm. We are pushing on with the work preparatory to sinking. No time shall be lost in effecting this desirable object: and I do not hesitate to say, on reaching the 52, that South Lady Bertha will be a good dividend mine. On Monday we shall sample 32 tons of copper ore, which will give a profit upon the month's work, and we have several tons broken towards another sampling. The machinery is in good working order, and everything progressing satisfactorily.

SOUTH TOLGUS.—Dec. 4: Youren's Lode: At Michell's engine-shaft, sinking below the 130, the lode is 18 inches wide, composed of mundic and spar. The lode in the 130 is 16 in. wide, composed of flookan and spar. In the 120 west the lode is 1 ft. wide, composed of spar and good stones of ore. We have been obliged to stop the winze in the bottom of the above named level, in consequence of an increase of water. The two stopes in back of the 120 west each yield 3 tons of ore per fm. The lode in the 110 west is 20 in. wide, yielding 2 tons of ore per fm. In the 100 west the lode yields 1 ton of ore

per fathom. The lode in the 90 fathom level west yields 1 ton per fathom. In the 78 fathom level west the lode is 16 inches wide, composed of spar, peach, mundic, and stones of ore; a very promising lode.—South Lode: The lode in the 130 east has not been taken down since last reported on. The same will apply to the 120 fm. level east. The lode in the 110 east yields 1 ton of ore per fm. We have stopped the winze sinking in the bottom of the 110 east in consequence of an increase of water. The two stopes in back of the 110 west are each yielding 2 tons of ore per fm. In the 100 east the lode is 18 in. wide, unproductive. The lode in the winze sinking in the bottom of the 100 east is small and unproductive.—New South Lode: In the 78, west of cross-cut, the lode is about 1 ft. wide, composed of spar and killas; we intend suspending this level at our next setting-day.—North Lode: In the 90 fathom level west the lode is from 20 in. to 2 ft. wide, unproductive.

ST. IVES WHEAL ALLEN.—T. Richards, Nov. 30: In giving a report of this mine it would be needful for you to bear in mind that in the former working they sank as deep as they could below the 46 upon the tin, and before we could work to any advantage for the ultimate working of the mine we had to drive through very hard ground in the 50 from Giesler's flat-rod shaft to communicate with the two winzes sunk under the 40. As far as we have seen of the mine the lode is softer than the granite, and in working upon the lode, there being very little water, it was their custom to work upon the tin so long as they could follow it conveniently. In the eastern winze, which was sunk by old miners 9 ft. below the 50, which is just holed, one part of the lode goes east of the winze, which contains some good tin, and we shall drive upon it at once; after it is opened upon we shall be better able to state its value; it is all important to drive this end to follow the 30, which will be subsequently referred to. About the winze a carbona is taken off north, underlying or dipping rapidly, which contains good tinstuff; here we have six men breaking tinstuff. We have also a carbona south of the 50, which we shall open upon also without delay. In driving the 50 to hole to the old men's winzes or stopes under the 40 we find some very good tin ground, which we are now working upon, and you will please remember that I have before informed you until our stamps were in order it was not expedient to break the tinstuff. Our Giesler's flat-rod shaft is sinking by nine men below the 50, which we shall continue with all speed, and the depth we shall sink before we make another level will depend upon the lode in the winze we purpose sinking below the 50. In the 30 end, driving east of Giesler's shaft, we have a rich lode worth 20*l.* to 25*l.* per fm.; this end we shall hasten eastward towards Richard's shaft, because it is opening into new ground, there being no level over or under it below the adit level. Our stamps are only now put on moderate quality work, and the burning-house will require a fortnight longer to be made suitable for calcining the tin, after which we shall get on better, because we have sold no tin. Our object now is to break tinstuff, and in the next three months we shall show more of the capibilities of the mine for returning of tin than all the time that has gone before during our working. We are clearing out the deep adit level near Richard's shaft upon another lode, and in driving the 30 end east about 15 fms. we expect to intersect it; this would be important to see, and probably highly productive for the future, because the lode might prove rich about the intersection; such points often proving in a mineral district to yield productively. There is no doubt of this mine being in a good district, because the returns made by former workers have proved it, and as our depth can only be considered at the beginning, the ultimate benefit is likely to be very considerable when the different points have had time to develope them in a proper manner. I write thus lengthy to explain my views, and there is no doubt on my mind but time will prove to the adventurers that by perseverance and prosecuting the various lodes we shall be well repaid for our outlay.

ST. IVES WHEAL ALLEN.—H. Taylor, Dec. 5: In the lode at Giesler's engine-shaft, sinking below the 50, there is no change to notice since last report. We have communicated the 50 to the winze; here the lode is from 24 to 30 inches wide, with a promising appearance; we have to remove the lift, pump, and rods from this winze, and take up the water at the 40 and bring it to shaft; I hope to say more about it next week. The lode in the 30, east of Giesler's, is 20 in. wide, worth from 20*l.* to 25*l.* per fm., and looking well. At Richards's shaft, on the deep adit, we have commenced to clear up the levels on the lode, and we find them full of attle; the lode as far as can be seen is 12 in. wide, composed of capel, peach, and tin, looking promising.

TAMAR SILVER-LEAD.—T. Foot, Dec. 4: The ground at the engine-shaft is without alteration since last report. The lode in the 237 south is 3 ft. wide, and will produce 8 cwts. of lead per fm., and promising to improve. The two stopes in back of this level produce—No. 1, 6 cwts.; and No. 2, 10 cwts. of lead per fathom. The lode in the 226 south is disordered by a slide crossing the end. The stopes yield—No. 1, 7 cwts.; No. 2, 5 cwts.; and No. 3, 25 cwts. of lead per fathom. The lode in the 215 south is 2½ ft. wide, yielding 10 cwts. of lead per fathom. The stopes in back of this level, four in number, will produce as follows:—No. 1, 21 cwts. of lead per fm.; No. 2, 8 cwts.; No. 3, 9 cwts.; and No. 4, 20 cwts. of lead per fathom. The stope in back of the 205 is producing 9 cwts. of lead per fathom.

TEES SIDE.—R. Bray, Dec. 4: In Hardshins level, driving east, the lode is 18 in. wide, composed of spar, with spots of ore, with very strong feeders or strings of spar coming in from the north, which is improving the lode. By the appearances there is more cross veins crossing Hardshins lode to the east, and in driving to the hill we shall have a stronger cover in the Tyne-bottom limestone, which will improve and be stronger for lead ore. I shall measure the men's bargain on Friday for November month, which I will send you the cost-sheet of next week. We have this last week had very hard rost and showers of snow. Nothing can be done on surface work.

TINCROFT.—Wm. Teague, Dec. 4: Highburrow Lode: There is no alteration in the engine-shaft, sinking under the 184, since last report; until the past week the sumpmen were engaged in making the communication of the downright shaft with the 162, from the engine-shaft; this is now effected, and the sinking of the engine-shaft will be carried on now with the greatest dispatch, by eight men. In the 184, driving east of shaft, the lode is yielding saving work for tin. In Martin's east shaft, sinking under the 173, driving east of shaft, the lode is worth for tin 8*l.* per fm. In the winze sinking under the 173, east of shaft, the lode is worth for tin 20*l.* per fm. In the rise in the back of the 120, at downright shaft, the lode is worth for tin 10*l.* per fm.—Chapple's Lode: In the 162, driving west of downright shaft, which was holed to this level in the past week or two, the lode is poor, neither can we calculate much on the value of this level for some 18 or 20 fms. driving, the same being in a poor run of ground. In the 152, driving west of downright shaft, the lode is worth for tin 15*l.* per fm. In the 152, driving east from boundary winze, the lode is worth for tin 10*l.* per fm.; this level has fallen off in value since last report. The 152, east and west of winze, will be suspended after this week, and we hope to communicate the above levels with the one driving west of shaft in course of another month from this time, when a large extent of tin ground will be made available for taking away.—Duncan's Lode: In the 142, driving west of cross-cut, the lode is not looking quite so well as it has been, worth at present 20*l.* per fm., but I think from its appearance we may expect an early improvement. The rise in the back of this level is worth for tin from 15*l.* to 20*l.* per fathom. I should say that this rise is 14 fms. above the 142; we shall not have any midway level between this and the 100 before we have effected a communication with the 100 cross-cut, which we are now driving for that purpose. There is nothing new at North Tincroft worthy of particular notice. We have had a little ore in the tribute pitch in the bottom of the 142, west of shaft, but nothing lasting. The stopes and pitches continue to yield their usual quantities of tin and copper ores, and I hope we shall continue to sell from 25 to 30 tons of tin per month, and the usual quantity of copper.

TOLCARNE.—Dec. 4: Field's Lode: The lode at Field's shaft, sinking below the 30, is 2½ ft. wide, consisting of gossan, spar, and good stones of copper ore—a kindly lode. The lode in the 30 end, driving west of shaft, is 18 in. wide, consisting chiefly of spar. The lode in the 30 end, driving east of shaft, is 2½ ft. wide, consisting of gossan, spar, and copper ore—a promising lode for improvement. The lode in the 20 end, driving west of shaft, is 16 in. wide, consisting chiefly of gossan and spar—a kindly lode. The lode in the 20 end, driving east of shaft, is 15 in. wide, consisting of spar and copper ore, yielding full 1 ton of ore per fm. The lode in the winze sinking in bottom of the 10, east of shaft, is 10 in. wide, consisting chiefly of spar. The lode in the 10 end, driving east of shaft, is 1 ft. wide, consisting chiefly of soft spar—a kindly lode. The lode in the adit end, driving east of shaft, is small and poor.—Enthoven's Lode: The lode in the stope in bottom of the adit level, west of the cross-cut, is 4 feet wide, worth for tin about 25*l.* per fm. The ground in the rise against King's shaft is hard and wet. The ground in the adit cross-cut, driving south of Enthoven's lode, is composed of hard granite.

TRELAWNY.—Dec. 4: I am just come up from underground, and inform you I have been from the north mine to the south mine at the 142 fm. level.

TREHILL.—H. Rickard: We are making good progress in driving the 50 west to intersect the cross-course; if it continues its regular underlie, as seen in the upper levels, we cannot be far off from it. We have cut a branch in the cross-cut south-west from the western shaft at the 40, containing spots of ore, but not enough to value; I believe the main part of the lode is still further south. Rapson's pitch is not looking quite so well; the winze being nearer the slide as it goes down towards the 40. We sampled on Friday last at Calstock Quay, computed, 25 tons of good quality ore.

TRELOWETH.—Thos. Richards, Dec. 4: The ground in the 144 ends, east and west, continues to be hard upon the lode, but we are now driving in the country north of the lode for progress. The stopes are looking pretty well. I think the ore for sale on the 12th inst. will realise above 900*l.*

— T. Richards, Dec. 5: In the 144 end, east of Cole's, we are driving in the country, and carrying the north part of the lode, which contains a little ore; it is our intention to extend the level upon this part for some fathoms, until we get under the winze, or cut something in the lode, to induce us to cut further into it. The 144 is driving west in the country, north of the lode, for speed. A winze sunk below the 134, about 10 fms. east of shaft, is down 4½ fms., the water quick, and lode improved in value, worth 12*l.* per fm., and suspended until drained by the bottom level. The 134 end; driving east, hard and poor; this end is only 3 fms. behind the cross branch, where we have a good lode in the stope below the 124, west of sump-winze. After the cross branch is cut through we look forward to having a productive lode for a long distance, judging from the 124 fms. driven through, and the stopes wrought below. In the 134 end west we are stoping down a piece of ground to get back to the winze, and as the ground is hard we can take the lode down to the bottom of the level more rapidly than by driving an end; it will require some time in January, 1862, to stope the ground before we commence driving the 134 end, west of the winze. We have a good lode, worth about 20*l.* per fm., in the stope, and it really looks promising for a deeper level. We have begun to drive the 134 end east of the cross-cut, upon the south side of the lode, which level we shall continue driving so long as the lode will pay for prosecuting; at present it is worth 18*l.* per fm. The sump-winze below the 124 is worth 15*l.* per fm.; this winze is under the level 3 fms. 4 ft. The stope, east of sump-winze, is worth 20*l.* per fathom. The second stope, east of sump-winze, is worth 20*l.* per fm. The stope, west of sump-winze, is worth 12*l.* per fm. The lode in the 124 ends, east and west, is unproductive. We shall sell on the 12th inst. about 900*l.* worth of copper ore, and, although it may be premature to speculate upon the amount of the following sale, I think it will not be far short of 1000*l.* worth. I admit the hardness of the ground, but the quality of the copper ore is very good, and if we could only increase the quantity it would place us in a profitable position.

TRENCROM.—R. Hollow, F. Bennetts, Dec. 5: The lode in the 100, east of Giesler's engine-shaft, is worth 2*l.* 10s. per fathom. The lode in the 100, west of the engine-shaft, is worth 2*l.* per fathom. The lode in the 90, east of the engine-shaft, is worth 3*l.* 10s. per fathom. The lode in the 90, west of the engine-shaft, is worth 2*l.* 10s. per fathom. The lode in the winze, sinking below the 80, west of the engine-shaft, is worth 2*l.* 10s. per fathom. The lode east of 60 cross-cut, north-east of engine-shaft, is worth 3*l.* 10s. per fathom. The lode west of the 60 cross-cut, north-east of the engine-shaft, is worth 2*l.* per fathom. In the 60 cross-cut, south-east of the engine-shaft, no change to notice. The lode in the 30, east of Hollow's shaft, is unproductive. The lode in the 30, east of Michell's flat-rod shaft, is worth 2*l.* 10s. per fathom. The lode in the 30 west of the flat-rod shaft, is worth 3*l.* per fathom.

TRIMLEY HALL.—T. P. Thomas: The shaft is now down about 30 yards; ground very promising, but we shall not cross-cut for the lodes until we are some fathoms deeper.

TRUMPET UNITED.—Nov. 30: We have nearly completed the fixing of the plunger-lift at the 25, and which we hope to work to-morrow. The lode in the 15 west is 1 ft. wide, and producing good work for tin; I have to-day vanned some of the stuff, and it produced full 1 ton per 100 sacks, or say in value full 15*l.* per fm.

UNITED MINES (Tavistock).—John Tucker, Dec. 4: The lode in the 72 east is full 8 ft. wide; the south part of it, on which we are driving, contains iron, mundic, some stones of yellow copper ore, and a little tin, but upon the whole is of no value; the lode in the western end of same level is about 3½ ft. wide, well formed, and produces a little tin, but not to value. The lode in the 60 east, as also in the eastern end of the stopes behind the end, is improving in width; the quality of it is about the same.

VALE OF TOWY.—A. Waters, T. Harvey, Dec. 4: In the engine-shaft, sinking below the 100, the ground is not quite so favourable for progress as it has been of late. The lode in the present bottom is inclining east about 1 ft. in 6 ft., and will soon be out of the present line of the shaft; the lode in this mine is most productive the nearer it approaches the perpendicular. In the 100, driving north of shaft, the lode has very much improved in appearance, is 2½ ft. wide, composed of carbonate of lime and barytes, with a leader of lead ore up and down the middle of the end, which we are saving. In the 100, south of the great cross-course, the lode is in a compact clean end, at present unproductive. In the 90, south of Field's shaft, we have a large lode of soft ground, with blende and small stones of lead ore throughout, but not to value. No change in the 80, north of Clay's, for some time past. In the new adit, south of Nante, the lode is large, with stones of lead ore in the barytes. Other places without change to notice.

WENDRON CONSOLS.—J. Taylor, E. Jenkin, W. Johns, Dec. 4: The engine-shaft men are driving west on the engine lode in the 45, at 22*l.* per fm.; lode 4 feet wide, worth 20*l.* per fathom; two men stoping in back of this level, at 7*l.* per fathom; lode 4 feet wide, worth 9*l.* Bishop's shaft is being sunk below the 52 on engine lode by six men, at 35*l.*; lode 3 feet wide, worth for length of the shaft (10 feet), 20*l.* per fathom. The 52, east of this shaft, is driving by four men, at 22*l.* per fathom; lode 3 feet wide, worth 13*l.* The 52, west of same shaft, is suspended for the present, and the endmen are rising close behind the end for ventilation and to lay open the ground; lode in the rise 1½ ft. wide, worth 5*l.*, and rising at 7*l.* per fathom. The 42 is driving east of Bishop's shaft, on engine lode, by four men, at 13*l.* per fathom; lode 2 feet wide, worth 14*l.* The 32 is being driven east of Hurler's shaft, on engine lode, at 14*l.* per fathom; lode 2 feet wide, worth 10*l.* Six men are engaged driving the 80 west of Hill's shaft, on Flanders' lode, at 12*l.* 10s.; lode 1½ ft. wide, worth 7*l.* per fathom. The 40 is being driven west of same shaft, on Flanders' lode, at 10*l.* per fathom; lode 3 feet wide, unproductive. The 30 is being driven west, on north lode, by four men, at 12s. 6d. in 1*l.* The 20 is being driven west of Hill's, on north lode, by two men, at 2*l.* 10s. per fm.; opening tribute ground. Bal Dees diagonal shaft is sinking below the 35 by six men, at 15*l.* 10s. per fathom; lode 2 feet wide, worth 12*l.* per fathom, and improving. The lode in No. 1 stope, east of shaft, is 2 feet wide, work of lower quality. No. 2 stope, in back of the 35, is worth 6*l.* per fathom; stoping by four men, at 2*l.* Bal Dees perpendicular shaft is sunk 2 fms. below the 35, and a trip-plat cut, also bearers and cistern fixed, and we shall without delay begin to fix our pitwork at that level. The engineers are getting on as fast as possible in heaving in the engine, which we hope will be set to work in the beginning of next month.

WEST BASSET.—Wm. Roberts, Dec. 4: In Grenville's engine-shaft, now 2 fathoms under the 94, the lode has much improved since last reported; it is full 4 ft. wide, producing 5 tons of ore per fm., or for the length of the shaft (12 feet) 10 tons per fathom. In other parts no alteration to notice.

WEST DEVON CONSOLS.—G. Rowe, Dec. 5: The lode in the 40 east is improving in character, and producing good stones of ore. No other change.

WEST PAR CONSOLS.—J. Webb, Nov. 29: I have had my survey underground to-day, and found an improvement in the 65; I think we shall lay open much tin ground here. The 55 must be ventilated before we can go on much further; we are making preparations to do so. The castings will be brought to-day for the plungers. I see we shall be able to keep going all the stamps-heads, although the tinstuff to commence with will not be of very high produce. We have many repairs to make, the stamps having been idle so long, but every operation shall be pushed on as fast as possible.

— H. G. Webb, Dec. 5: I beg to inform you the lode in 65 fm. level end is 4 ft. wide, worth 1½ cwt. tin per 100 sacks. We have been obliged to suspend for a few days the driving of the 55 end east for want of air, until it is supplied with better ventilation. During these few days we have put the men to take down some lode in the back of this level, a few fathoms behind the end, where the lode is producing some excellent work for tin. The winze below the 55 and stopes are just as noticed last week; worth 15*l.* per fathom. The tributers are working with good spirit, and most of them getting fair wages. We have got the winding in good order, and shall soon get the levels cleared of the stuff which has been accumulated in the levels in waiting for the new rope.

WEST POLMEAR.—W. Body, Dec. 5: The 20 cross-cut, south of the engine-shaft, is driven about 60 fathoms; driving at 5*l.* per fathom. We have opened a few feet on the lode we intersected east in the cross-cut (No. 2 lode); it is about 2 feet wide, composed of gossan and spar, underlying north about 2 feet in a fathom. We have driven east on the branch about 8 fathoms. No alteration since our last report, and we have opened on the north lode about 30 fathoms; the lode is about 2½ feet wide, composed of peach, mundic, and spar—driving at 30s. per fathom.

WEST SNAILBEACH.—J. Richards, Dec. 5: During the past week the men have driven 5 ft. 6 in., making 6 fms. 2 ft. from the shaft. About 7 or 8 feet more will intersect the lode. The end is getting wetter, with occasional branches of spar, indicating our nearing the lode.

WEST TOLGUS.—Dec. 4: South Lode: Taylor's shaftmen have been engaged since the account meeting in cutting plat in the 40, which will be completed this week. The lode in the 65, west from Wheal Raven shaft, is 4 ft. wide, composed of spar, peach, mundic, jack, and good stones of ore, a fine loooking lode.—North Lode: The lode in the 53, west of Raven engine-shaft, and east of cross-cut, is 3 ft. wide, composed of spar, mundic, jack, and good stones of ore. In the 40 end, west of Raven engine-shaft, and east of cross-cut, the lode yields 1½ ton of ore per fm. The ground in the 65, 50, and 30 fm. level cross-cuts, north from south lode, is moderately easy.

WEST WENDRON CONSOLS.—R. Kendall, W. Hosking, Nov. 30: We have set the engine-shaft to sink below the 10, with nine men. A bargain, 9 ft. to sink, cut a plat 9 ft. by 8 ft., and cut cistern-plat, and put in bearers for the sum of 30*l.* At the flat-rod shaft the lode is 3½ ft. wide, yielding a little tin—a very promising lode indeed. We must fix a lift in this shaft shortly.

WHEAL AGAR.—W. Roberts, Dec. 4: I cannot speak of any improvement in the tutwork bargains since reported for the meeting, on Nov. 27. The 80 west continues to produce 2 tons of ore per fathom.

WHEAL ANNA (Perranzabuloe).—S. Mitchell, Nov. 27: The lode in the rise in back of the adit on the lead lode is looking well, and so is the end driving east at the deep adit for lead and blende. We are still continuing the cross-cut south at Hicks's, and calculate to reach the south lode in 2 fms. more. The one that we have gone through is a splendid-looking lode, and there is no doubt of its turning out a good thing if properly developed.

WHEAL ARTHUR.—Nov. 30: Middle Lode: The 50 west will yield 3 tons of good ore per fathom. The 50 east 2½ tons. The back of 50 east 1½ ton. The back of 50 west 1½ ton per fm.—Old Lode: The 50 west is worth 3 tons per fm. The back of 50 west is worth 3 tons of good ore per fm. Palmer's stope, in back of adit east, is worth 1½ ton of ore per fm. We are putting out a cross-cut in the adit level to cut the middle lode, which will be 13 fms. below the 50, where there is a good course of ore gone down. I think we have about 4 fms. more to drive to intersect the lode; we are driving this cross-cut by four men, at 50s. per fm. We sampled at Calstock Quay yesterday, computed 110 tons of good quality ore.

— December 5: Edward Lode: The lode in the 50 fathom level east is 3 feet wide, yielding stones of ore; this level is driving by two men, at 4*l.* per fathom. The lode in Prout's rise, in back of the 50 east, is 3 feet wide, worth 6*l.* per fathom; working by four men, at 4*l.* 10s. per fathom.—Middle Lode: The lode in the 50 west is 2½ feet wide, worth 12*l.* per fathom; driving by four men, at 5*l.* per fathom. The lode in Burley's rise and stope, in back of the 50 west, is worth 9*l.* per fathom; working by six men, at 50*l.* per fathom. The lode in the 50 east is 2 feet wide, worth 14*l.* per fm.; driving by six men, at 5*l.* per fathom. The lode in Rook's rise and stope, in back of the 50 east, is worth 8*l.* per fathom; working by four men, at 50s. per fathom.—Old Lode: The lode in the 50 west is 3 feet wide, worth 10*l.* per fm.; driving by four men, at 5*l.* per fathom. The lode in Job's rise and stope, in back of the 50 west, is worth 10*l.* per fathom; working by four men, at 40s. per fathom. The lode in Palmer's stope, in back of the adit east, is 3 feet wide, worth 6*l.* per fathom; stoping by two men, at 40s. per fathom. The ground continues very favourable for driving in the adit cross-cut towards the middle lode; this level is driving by four men, at 50s. per fathom. The mine throughout is looking very well indeed.

WHEAL CREBOR.—Capt. Gifford, Dec. 5: We have cut the east cross-course in both the 48 and 60 fathom levels, west of Cock's shaft, and a large stream of water is coming from both of the ends, enough to nearly keep our engine going as fast as we can drive it, and which, of course, will soon drain the old mine. I hope to be able to say more about it in my next. The 60, driving north on the cross-course, to cut the main lode. The 60 east is without alteration. The 48 west is suspended till the water subsides. The stope in the back of the 60 east is producing 1½ ton of ore per fathom. We are getting on with the dressing with all possible speed.

WHEAL CUPID.—R. Pryor, sen., Nov. 30: We have opened on the lode cut in the 40 cross-cut, west of shaft, about 4 ft. in the eastern end; it is 15 in. wide, composed of mundic, peach, and spar, with rich stones of yellow copper ore. The lode in the western end is 18 in. wide, of much the same character. I consider the appearance of these two ends to be very encouraging, and I am induced to think will shortly make ore to value. Other places much the same as when last reported on.

WHEAL DAMSEL.—R. Harvey, sen., H. Harvey, Nov. 30: King's Shaft: The new lode cut in the 40 fm. level cross-cut, south of this shaft, is 3 ft. wide, composed of gossan, spar, and prian—a fine-looking lode, and we think there is not the least doubt, when out of the influence of the cross-course, it will make ore.—Tremayne's Lode: We have this day taken down the lode in the winze sinking below the deep adit level, which has undergone a very favourable change, now worth full 14*l.* per fm., with a good appearance. The engine-shaft is cleared 3 fms. under the 40, which is progressing very favourably, and no time shall be lost in clearing the same to reach the 50, in order to resume the driving of the same on Tremayne's lode, as the winze sinking below the deep adit level is in advance of this, and all other levels, about 25 fms. No change to notice in any other part of the mine.

WHEAL EDWARD.—M. H. East, Dec. 4: The ground in the boundary cross-cut north is very easy for working, and appearances indicate something of importance near at hand: 12 fms. have been driven in this cross-cut since Nov. 14, the date of the plans; it is in a very fine channel of ground for mineral. We are daily expecting the caunter in the 81 west, south lode, and 52 west, north lode. Bray's cross-cut is being pushed on. Any change at these points shall be promptly dispatched.

— M. H. East, Dec. 5: The new lode discovered in the boundary cross-cut is cut into about 5 ft., composed of spar, capel, mundic, and rich stones of ore, as fine a lode as can be seen, and cannot fail, in my opinion, to lead to satisfactory results. We shall put in substantial timber to secure the level, and on reaching the north wall shall immediately commence driving west on the lode.

— *Telegram*: M. H. East: An important discovery in the boundary cross-cut north, cut into a lode 4 ft., not through yet. The general appearances are highly encouraging.

WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Nov. 30: The 110 west, to six men, at 6*l.* per fm.; lode 20 in. wide, of quartz, &c., producing stones of ore—a promising lode. The 100 west, to four men, at 3*l.* 10s. per fm.; lode 20 in. wide, opening tribute ground. The 90 west, to four men, at 6*l.* 10s. per fm.; lode 10 in. wide, of quartz and peach, with mundic and yellow ore, tribute ground. The 80 east, to four men, at 5*l.* 10s. per fm.; lode 18 in. wide, of gossan and quartz, with stones of ore—a kindly lode. The 80 west, to four men, at 5*l.* per fm. The 80 fm. level cross-cut north, to eight men, at 17*l.* per fm.; the ground being of much the same character as for some time past; during the last week we had a stream of water which almost led us to think we were near the lode. The flat-rod shaft to six men, at 10*l.* per fm.; the ground being of a very congenial granite, and we intend to sink it 25 fms. before we cut through the lode. The pitches are looking much the same as for some time past.

WHEAL GRYLLS.—Dec. 5: Fisher's Lode: At Annie's engine-shaft we have fixed drawing-lift, footway, &c., and commenced sinking; the lode is just the same as when last reported on, worth 18*l.* per fm. In the end driving east, at the 20, the lode is worth 5*l.* per fm. In the winze in the bottom of the 10 the lode is worth 6*l.* per fm. In the 20, west of the flat-rod shaft, the lode is a little improved, worth 7*l.* per fm. In the end east at this level the lode is also improved, worth 4*l.* per fm. In the end driving south, at the adit level, there is no alteration; the lode is worth 10*l.* per fm.—Georgia Lode: In the two stopes in the back of the adit the lode is worth on an average 35*l.* per fm. At the surface the engine-house is up and covered in, and the engineers are preparing to erect the engine.

WHEAL GRYLLS (*Special Report*, per Mr. Lelean).—John Nancarrow, Nov. 26: This sett, in the parish of St. Hilary, adjoining Perranuthnoe, is situated on the Helston road 2½ miles east of Marazion; it is ½ mile in length and width, and surrounded by Mill Pool Mine on the north, St. Aubyn and Grylls on the east, Wheal Speedwell on the south, and Wheal Neptune and Tolvadden on the west. The stratum is killas. The operations are on three lodes, and a fourth is about to be laid open. Georgia lode, running north and south, is near the middle of the sett, and worked only to the adit level, which is 40 fms. deep; it was worked from surface to the 23 for a few fathoms in length; from the 23 to the 33 it was worth for 11 fms. long 30*l.* per fm. In the 40 (or adit level), which is only driven 20 fms. on the lode, it was in some parts much better; and the stopes in back, although not so rich as they were, are worth 40*l.* per fm. The lode in the bottom of this level is valued at 30*l.* per fm. for 14 fms. in length; the shaft is sunk on the lode in the midst of this tin ground; it is being cut down for an engine-shaft, and will be finished to the adit in a month; here is a house nearly up, in which an engine of 32-in. cylinder is to be erected for the pumping of water from this shaft and stamping, which, if the weather is favourable, will probably be ready to work in six weeks, when sinking below the adit may be commenced immediately. The standard lode, having an east and west direction, is wrought towards the north-west corner of the sett. There is a 19 fm. level (from surface) extended on the lode 70 fms. A 30 fm. level driven 37 fms. A 35 fm. level driven 32 fms.; and a 40 fm. level driven 7 fms.; nearly all the drivings have been through tin ground, and there are sixteen men now working at moderate tributes. Fisher's lode is situated towards the north side of the sett, inclines 20° north of west, with little underlie; on this, four shafts are sunk—Annie's shaft, on which there is a 41-in. cylinder engine, is sunk to the 20. Fisher's shaft, 22 fms. west of Annie's, is down to the 10. The flat-rod shaft, 85 fms. east of Annie's, is down to the 20; and Gryll's shaft, 75 fms. east of the flat-rod shaft, is down to the 10. There is a slide in the flat-rod shaft, 15 fms. from surface, underlying west, which will come into Fisher's shaft a little below the 10; under this slide the lode has improved. There was tin ground in the back of the adit, worked more or less for 130 fms. long, from about Gryll's shaft westward. There was also some good ground, west of Fisher's shaft, above the adit, but it is to a considerable extent worked out. The 10 fm. level is driven 16 fms. east of Gryll's, and 40 fms. west of Fisher's; upwards of 150 fms. of this driving was through tin ground, which has been worked to some considerable extent, but there is a great deal still standing in the back, and the bottom is whole, and although the lode is not generally rich, the ground is very easy, and it can be worked at comparatively low tributes. The 20 is driven 33 fms. east and 13 fms. west of engine-shaft. The east end is worth 7*l.* per fm.; the lode driven through varies from 2 to 7 ft. wide, and will work at 5s. in 1*l.* The west end is worth 3*l.* per fm.; the back will work at 4s. in 1*l.* The 20 is also driven 15 fms. east and 26 fms. west of flat-rod shaft. The lode in the east end has been small, but is now 9 in. wide, and seems to be improving. The lode in the west end is 1½ ft. wide, worth 4*l.* per fm.; the back can be worked at from 4s. to 5s. in 1*l.* tribute. The winze over this is down 8 fms., worth 3*l.* per fm. The lode in Annie's engine-shaft is 7 ft. wide, valued at 18*l.* per fm., but this I could not see for the water. There is a branch crossing Fisher's lode, 10 fms. east of Gryll's shaft, which is of a blackish colour and singular appearance; for 4 fms. north and south of the lode it was from 2 to 3 ft. wide, contained good work for tin, and improved the lode. There is a cross-cut driven south 16 fms. on this branch at the adit level; after the first 5 fms. it became exceedingly small, but is recently improved; it contains good work for tin, mixed with black copper ore; this, as it is approaching the south lode, which inclines a little south of east, is likely to affect it favourably, which lode, though worked extensively on the back, is not seen far below surface; this point, together with the tin gone down on Georgia lode, and the long run of tin ground on Fisher's lode, point out this mine as one of no ordinary promise. There are 42 men on tribute at an average of 8s. 5d. in 1*l.*, but the best places are stoped on tutwork. There are 62 men on tutwork, and the total number of hands employed is 130. There is every probability of the mine yielding good profits, soon after the stamping machinery and dressing apparatus are completed.

WHEAL HARRIETT.—S. Williams, Nov. 30: In the engine-shaft we have a bunch containing good stones of copper ore; this is underlying north, and I think it to be a dropper from the lode. The lode in the 115 end is small and unproductive. The lode in the 100, east end, is 2 ft. wide, worth 10*l.* per fm. for tin. The ground in the deep adit cross-cut is without change to notice.

WHEAL HENRY.—F. Pryor, E. Ralph, Nov. 30: Our principal object is to communicate the winze from the 50 to the 70, which will be done in about 6 weeks if the ground continues, after which the engine will be again turned idle, and the 70 ventilated, thus enabling us to open on the two copper lodes as well. The tin lode, also stope or let on tribute, is a large piece of unexplored ground. We are now breaking some good stones of tin from the winze. As soon as we are in a position to open up ground at the 70, if we may judge from what the lodes refered to produced in the adjoining mine, we have a right to expect some good discoveries here.

WHEAL HOPE.—W. H. Reynolds, Dec. 4: In the 14 cross-cut we have got into soft killas, with spar and lead, and we expect to cut the lode very soon. In the 28 cross-cut south the ground is favourable, and we think the middle lode is near at hand. We have commenced sinking on the south lode, below adit, and find the underlie greater than at first expected. This winze will come down upon the 14 just at the point where the cross-cut intersects the lode. The lode in this winze is large, and composed of spar, flookan, &c., with stones of lead—a very kindly lode.

WHEAL KITTY.—R. Pryor, sen., J. Nicholas, W. Higgins, Nov. 30: At the engine-shaft, in the 100 east, the lode is worth 6*l.* per fathom; the rise in back of this level is communicated to the level above. In the 90 east the lode is worth 8*l.* per fm. In the 80 we have cut the cross-course, which has heaved the lode south, and we are now driving in that direction to cut it again. We would remark that to the east of this cross-course, in the level above, good bunches of tin have been met with, and we are somewhat sanguine as to the results of this end as it goes east. The winze sinking below this level is holed to the 90. The lode in the winze sinking below the 72 east is worth 10*l.* per fm. The lode in rise in back of same is worth 8*l.* 10s. per fm. In 65 west, at Holgate's shaft, the lode is worth 8*l.* per fm., and of a most promising character. In the 54 west the lode is worth 12*l.* per fm. No lode has been met with in the cross-cut south of this level, but within the last day or two we have an increased quantity of water, which we regard as a favourable indication. Our tribute department is much the same as for some time past. All the machinery on the mine is in good working order.

WHEAL KITTY (Lelant).—Wm. Williams, Dec. 5: Engine Lode: The lode in the 160 end, west of the engine-shaft, is producing a little tin, but not of much value. There is no change to notice in the 150 cross-cut driving north of the engine-shaft. The 140 end, west of the engine-shaft, is opening tribute ground. In the 120 end, west of the engine-shaft, the lode is at present small.—Gowan Lode: Wickett's shaft, sinking below the 40, is down 9 fms.; at present the lode is worth 4*l.* per fm.; price for sinking 9*l.* per fm. The 40 end, east of Wickett's shaft, is suspended for the present, and the men are rising against the winze for ventilation; the rise is worth 4*l.* per fm. The lode in the 40 end, west of Wickett's shaft, is worth 2*l.* per fathom. The lode in the 40 fathom level end, east of Philip's shaft, is worth 2*l.* per fm. In the winze sinking below the 30, east of Wickett's shaft, the lode is unproductive.—South Russoe Lode: The lode in the 30 end, west of Giesler's engine-shaft, is at present unproductive.—North Russoe Lode: The lode in the 15 end, east of Bolitho's shaft, is 15 in. wide—low-price stamping work; price for driving 2*l.* 10s. per fm.—Wheal Kitty and Mary United: In the 130 end, east of the engine-shaft, we have intersected another cross-course, which is the third within 15 fms. of the large cross-course; at present the end is not quite through it. In the 110 end, east of the engine-shaft, the lode is worth 7*l.* per fathom; this is the best looking lode we have had east of the large cross-course. We have 10 fms. more to drive this end to the boundary. Hitherto the ground in the different levels has been hard, and the lode small, east of the large cross-course. The pitches are producing much the same as for some time past.

WHEAL MARY ANN.—P. Clymo, H. Hodge, J. Harris, J. Stevens, Dec. 4: The lode in the 170 north of Pollard's shaft is 3 ft. wide, worth 7*l.* per fm.; in the same level south it is 2½ ft. wide, worth 7*l.* per fm.; in the 160 north it is 3 ft. wide, worth 5*l.* per fm.; in the same level, south of Clymo's shaft, it is 3 ft. wide, worth 6*l.* per fm.; in the 150, south of Clymo's shaft, it is 3 ft. wide, worth 6*l.* per fm.; Clymo's shaft is sunk 9 fms. under the 160. There is nothing new in the 110, south of the slide. The stopes and pitches are producing much the same as they have for some time past. We sold, on the 26th November, two parcels of lead ores, No. 1, computed 60 tons, to Messrs. Stock and Co., at 25*l.* 7s. 6d. per ton, and No. 2, computed 27 tons, to ditto, at 10*l.* per ton.

WHEAL MOYLE.—Dec. 4: The ground in Michell's shaft is still very favourable; we hope by the end of the year to reach the 30. The lode in the 20 east, on the north lode, is producing rich stones of copper ore and good work for tin, worth for the latter 7*l.* per fm. In the cross-cut at the 20, driving south, we have cut the tin (or south) lode, which is 2½ ft. wide, producing rich stones of tin, a very kindly lode; we have not done sufficient on it to report on its value. Our machinery is in good working order.

WHEAL NELSON.—W. H. Reynolds, Nov. 30: The 44 fm. level is driven nearly 23 fathoms from cross-cut, the lode for this distance averaging from 18 in. to 2 ft. wide, and made up of friable spar, prian, peach, &c., with grey and black copper ore through it; the composition and general character of the lode is everything that could be desired—in fact, it is a highly promising lode. The lode in the 44 east is at present small, but opening a little again. In the shaft sinking below the 44 the lode is from 15 to 18 in. wide, composed of spar, prian, &c., and has a much better appearance than it has had since we commenced sinking; this shaft will be pushed on as fast as possible, in order to get another level under the very promising lode in the 44 as soon as possible, where we hope a great improvement will take place. The 44 cross-cut south is letting out pretty much water, and the strata is mineralised, so that we think there is a fair chance of cutting a good lode in it.

— S. Lean, Dec. 4: The lode in the 44 west is much improved for ore since yesterday; I cannot tell is value; we are driving in the horse, and allowing the lode to stand, and to-morrow I shall have a sollar put in, take down the lode, and send it to surface. I believe there is a great quantity of ore in the back of this level. I will write to you again to-morrow.

WHEAL NORRIS.—J. Nance, J. Andrews, Nov. 30: The Cremorne engine-shaft is now down 11 fathoms below the 15; the progress making in the sinking of the said shaft is very satisfactory. The No. 3 lode in the 15 end, driving east of Cremorne shaft, is 18 inches wide, and showing much the same indications as it has for some time past. We are driving the 15, east of Cremorne shaft, on the north part of the No. 4 lode, at 45*l.* per fathom; the part we are driving on is about 18 inches in width. The sinking of Carter's shaft below the 15 is not progressing quite as fast as we could wish, in consequence of the increase of water from the No. 4 lode; this will be remedied when the new pumping-engine is got ready to drain this part of the mine. In driving east of Carter's shaft, on the No. 4 lode, at the 15, we find that the "horse" which divided the lode is now worn out, and we have in the present end a large, promising, compact lode. The No. 3 lode in the 15, driving west of Carter's shaft, is 2 feet wide, containing a branch 12 inches wide, of good quality tinstuff, worth 9 cwts. of tin per 100 sacks. In driving east of cross-course by the No. 3 lode, at the 15, we have discovered another lode or part further north, which underlies only 1 ft. per fathom, whereas the No. 3 lode underlies full 2½ feet per fathom; this part also appears to diverge north from the No. 3 in its course west. We have opened on the north lode 18 inches, but have not reached the north part of it, so we cannot yet ascertain its width. The No. 3 lode, to the south of this, is 3 feet, but we have not taken down any of it this week.

WHEAL PROSPIDNICK.—R. Kendall, R. Sincock, Nov. 30: Watson's shaft has been to-day set to sink below the 22, by nine men, 8 fms., at 15*l.* per fm. The 22 to drive east, by six men, at 4*l.* 10s. per fm.; lode worth 8*l.* per fm. The stopes in the back of this level are let to six men, at 2*l.* 2s. per fm.; lode worth 15*l.* per fm.; a cross-cut has been set to drive north at this level, by two men and two boys, at 4*l.* 10s. per fm. The 22 to drive west, by three men and three boys, at 4*l.* per fm.; lode improving, worth 2*l.* per fm. The 12 to drive west, by two men and two boys, at 2*l.* per fm.; lode small, yielding a little tin. The 12 to drive east, by three men and three boys, at 7*l.* per fm.; lode 2 ft. wide, worth 4*l.* per fm. Six men on tribute at 13s. 4d. in 1*l.*

WHEAL SHEPHERDS.—H. Bennetts, Dec. 4: The lode in the adit still maintains its size and character as for some time past.

WHEAL SICILY.—J. Symons, Dec. 4: I am glad to say the water is forking. It forked 6 inches to-day, but I think we had better have a side lift at once, so that if heavy floods of rain should come we shall be prepared, and not subject to hindrance of this kind. The men have cleared the adit level on the great lode. I have been in the end to-day. There is no lode in the end. I think it has gone off on the eastern side about 14 fathoms behind the end. The end is driven about 30 fathoms south of the shaft. I would recommend trying this lode, as it has a very kindly appearance; it is about 2½ feet wide, composed of gossan, mundic, quartz, and spots of copper ore. I should also recommend to cut down the whim-shaft and make it for the engine-shaft, and sink as soon as possible, as this lode has been best in the bottom of the level the whole distance opened on. It is my candid opinion that we have got a good mine before us, but we must sink a few fathoms. What can we expect at only 17 fathoms deep? Look at the adjoining sett on the same lode, where they had nothing regular until they got 30 fathoms backs, when the ground got settled and the lode became rich. They have had a lode in the last 15 fathoms driving averaging 1½ ton of lead to the fathom, and there is every reason to believe we shall have it quite as good here, only to sink. We are getting on fast as we can with our dressing-floors, and I hope to begin to dress in a few days. The wheel and pitwork are in good working order.

WHEAL SIDNEY.—W. Edwards, Dec. 5: We are now in about 11 feet on the south or main lode in the end of the 60 cross-cut; the progress during the last fortnight, as

also at present, having been much retarded by the strong influx of water, and the porous character of the lode, the quality of which has varied, being latterly not so rich as last reported; but I am still of opinion that an improvement may be fairly looked for as we approach the south wall. In a winze sinking immediately above, in bottom of the 46, west of diagonal shaft, we are down about 8 feet, the lode very large, giving some very rich work for tin, and altogether of a most splendid character. This work will be pushed on with the utmost possible dispatch to meet the rise which will be put up from the 60. In other parts of the mine there is no change to notice.

WHEAL UNION.—Thos. Glanville, Dec. 4: In the 46, driving east of Moyle's shaft, the Turnpike lode is 6 ft. wide, producing about 15 tons of tin ore per fathom, worth by assay 3*l.* 10s. per ton; we are again sinking Moyle's shaft, to see the lode at a deeper level. The other parts of the mine are progressing favourably.

WHEAL UNITY CONSOLS.—Wm. H. Reynolds, Nov. 30: We have seen a little more of the lode in the 50 fm. level cross-cut since writing yesterday; it is now from 2½ to 3 ft. wide, composed of soft spar, iron, prian, and mundic, with rich grey and peacock copper ore through it. We believe that as soon as we are free from the cross-course, with which it is at present mixed up, we shall find it a good lode; at all events it is now a large strong lode, and its composition and general character is all that can be desired. We have just touched something in the 75 fm. level cross-cut, which we shall cut into on Monday, and we think it likely to be the lode.

— Wm. H. Reynolds, Dec. 4: In the 85 east the lode yields good stones of ore, and is improving. In the 75 cross-cut north we have cut into the lode 2 ft., but are not yet through it; it is made up of soft spar, prian, iron, and mundic, and letting out a large quantity of water. We believe that it will improve as soon as we get off from the cross-course, with which it is at present mixed up. The lode cut in the 50 is 2½ ft. wide, with a little rich ore through it, and improving going west. Other parts as last reported.

YARNER.—R. Barkell, Dec. 4: The lode in the 40 west is better defined, and is producing good saving work. We are dressing some of the stuff, and find it to be turning out equal to our expectations. The 40 east is poor. We think the main part of the lode is standing in the side, and intend shortly to push out a cross-cut to prove it. The 30 west is worth about 2 tons per fathom; lode large and wet, ground easy for driving. The stope is yielding 4 tons per fathom; the lode here for the past few days has been disordered by a horse of killas, but is again wearing out. There is no other alteration.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

NORTH WHEAL EXMOUTH.—Having seen a sale advertised a short time since and adjourned, and that since steps have been taken for winding-up by liquidators, I should be glad if the purser, secretary, or committee would state through the Journal, for the information of distant shareholders, what the meaning of this is; and also explain the financial position of the mine, and what became of all the money subscribed when the mine was commenced—surely it cannot be all spent.—[From the resolutions passed at the meeting referred to in last week's Journal, it appears that the company's affairs have been thrown into Chancery, and that the executive are endeavouring to avoid needless litigation, by adopting a course which will satisfy all concerned, and render further proceedings unnecessary.]

EAST CARN BREA.—A telegram has just been received, which states that a good lode has been cut during the week. Is is now 2 ft. wide, and the wall not yet reached—worth 60*l.* per fm. The mine throughout has generally improved.

WHEAL EDWARD.—Within another week something good is expected to be cut. The sales of ore, instead of 250 tons, as stated at the meeting, will be 275 tons, and the next sale more. I should strongly advise the committee not in future to allow surveying agents to inspect on the sampling-day, when Captain East is at the quays sampling. It is not justice to the agent, to the adventurers, or to the public. It is reported that one inspecting agent, who visited the mine on Friday last, has admitted that through smoke of powder he could not see some important points. Surely it is high time to stop such proceedings, which are merely got up for share jobbing purposes.

LADY BERTHA.—This is one of the mines in which the advantage of having a secretary unconnected with sharedealing would be apparent. A secretary getting the first report from the agent, and dealing in the market, has several days' advantage over the general body of shareholders. The sooner a change from this system of managing mines is made the better for the well-being both of mines and mining.

ROSEWARNE CONSOLS.—We have had an excellent lode of copper ore, for 3¼ fms., in the 30 fm. level east, and think we have it now coming in in the 40 fm. level. The mine is looking well.

WHEAL GRYLLS.—During the week this mine has improved in three or four places, and the new lode, referred to last week, continues to look well, worth full 10*l.* to 15*l.* per fm.; driving at 35s. per fm. This discovery is all in new ground to surface, 40 fms., high and dry, and for an immense length, which will take years to exhaust. In driving a few more fathoms a rich deposit of tin is likely to be met with, which will greatly add to the value of the mine. At Annie's engine-shaft sinking has been resumed on a fine lode, 6 ft. wide, worth 18*l.* to 20*l.* per fm., and is improving. In the 20 end the lode is worth 5*l.* per fm.; winze below, 6*l.* per fm. In the 20, west of flat-rod shaft, the lode has improved, worth 7*l.* to 10*l.* per fm., and the end east, which was not to value, is now worth about 5*l.* to 7*l.* per fm., and adit south 10*l.* per fathom. All these ends are driving in easy ground. The two stopes on Georgia are worth 35*l.* per fm. The engine-house is up and covered in, and it is hoped the engineers will be able to start the working of the engine before the end of this month. An inspecting agent writes this week as follows:—"I can see no reason why you should not be able to sample full 20 tons of tin per month, if the stamps go to work early in January. Should Georgia lode be found as productive below the adit as in the stopes above the adit, there will be no difficulty in making an increase in the samplings, and it is highly probable you will make a good discovery in Georgia part of the mine, as the shaft is sunk. Should this be the case, the mine cannot fail to make large profits and handsome dividends. It will require a little extra time and outlay to make floors, &c. I should say 500*l.* to 600*l.* per month would be a very good profit, and about a fair estimate. The agents at the mine are the best judges as to what tin can be raised monthly, and as you have always found them within the estimate, you may rely on it they will do their best. I am of opinion they can see their way clear to sample more than 20 tons of tin per month, and make profits of 500*l.* or 600*l.* per month." This would be at the rate of 6*l.* per share profit per annum, or (say) 6000*l.* The shares in this mine, although they have fallen from 18*l.* to 15*l.*, without any cause, will soon see double this figure.

At ROSEWALL AND RANSOM UNITED a rich carbona has been cut.

GREAT CRINNIS.—Some of the copper ore and stones from the lode in the 100 west have been received at the office. The ore is rich yellow sulphuret, and the matrix has been much admired by competent persons. There is every reason to believe that this 100 fm. level is near a large deposit of ore.

KESWICK MINE.—The lode in the 20 is still a magnificent course of lead. The lead is of the purest character, a leader more than 1 foot wide is solid lead, and the other part of the lode is producing excellent lead, but not so pure as the leader named. Should this continue, this persevering company will be amply rewarded.

At EAST PROVIDENCE operations are going on satisfactorily and well, and opening out good tin ground. When the winze is holed to the 30 fm. level returns will greatly increase.

GREAT TREVEDDOE.—Capt. Polglase (Dec. 4) reports—"We have a splendid lode of tin in the caunter, and the east and west lode looking well too."

WHEAL BASSET has improved at several points.

CUDDRA.—The tin part of the lode in the 100 fathom level, west of Tickell's, has been reached and cut into 1 foot, which is producing some splendid work for tin. This is an important discovery, as this level is 40 fms. deeper than the present works at Walker's, and 90 fathoms further east. It is considered this is the same run of tin ground as that at Walker's shaft. There is every prospect of having a lasting and productive property.

SOUTH DARREN.—This mine continues to open out extremely well. The 80 east is worth 12 cwts. per fathom, the 80 west 10 cwts., and the 70 east 1 ton per fathom; the last-named level being about 80 fathoms ahead of the 70, and has passed through a productive lode nearly the whole length, increasing considerably in value in going east. There are winzes being sunk below the 60 and the 70, which will shortly be completed, and enable the returns to be increased, and the driving of the 60 (worth about 6 cwts.) to be resumed. There are 24 men working on tribute, at from 7*l.* to 11*l.* per ton, incinding all cost, and other pitches are about to be set. The price of the ore even at present is about 18*l.* per ton. Regular monthly sales are made, which meet a large proportion of the costs, and there is scarcely a doubt but that good profits will soon result.

NANTEOS AND PENRHIW.—According to the report of Capt. Roach, presented to the meeting last week, the ore ground laid open is estimated at 7000*l.*; and he remarks that "with the ore already discovered, a small discovery in new ground, would enable the proprietary to get dividends." A good bunch of ore was discovered on the north lode, in the deep adit, at Eystumtean, which has held up well in the upper levels, and at 5 fathoms under the adit the lode was cut into, and found worth 2 tons of lead ore per fathom. The shaft is down to the 10, under adit (about 70 fathoms from surface), and Capt. Roach states that he has "great confidence in good bunches of ore being discovered by extending the level west on the north part of the lode." He also says that there is "an immense quantity of virgin ground to drive into, and the discovery of a good deposit of ore, which is likely to occur in this direction, would enhance the value of the property fivefold;" and also that "there is an immense quantity of lode unexplored in the upper levels, which, no doubt, will be found equal in quality to that already open for working." The agents (Captains Boundy and Faull) remark that the mines "were never in a more efficient state of working than at present, and the prospects never better." A number of tribute pitches are about to be set at 4*l.* 10s. to 6*l.* per ton, including all costs. We may say, therefore, that the prospects of these mines are very good, and there are few in which the shares can just now be purchased so exceedingly cheap. We understand that the late large shipmests of lead to America have exhausted the stocks, and looking also at the otherwise increased demand, a rapid rise in price is expected.

LOCHWINNOCH CONSOLS.—A reference to the Swansea Ticketing Paper of last week will show that these mines sold 77 tons of copper ore, at 5*l.* 6s. 6d. per ton, and 14 tons at 9*l.* 4s. 6d.—a pretty good proof of the increasing value and quality of these mines' produce. A cargo of 85 tons is now at Swansea awaiting sampling, on the mine are many tons ready to be shipped off, and between 50 and 60 tons broken underground ready for the slight process this ore requires and receives. In a short time the returns may be doubled. At the close of the year I will send you a return of all the ores raised and sold from the commencement. Ore was first cut on March 11 of the present year.

WEST KAIME MINE sells 16 tons at Swansea the next ticketing. On Monday next a further consignment of about 20 tons will be made for November month. The severity of the weather has materially interfered with surface operations.

CALDER GLEN UNITED MINES.—Capt. Bailey, of Tavistock, has been appointed to these mines, at a salary of 12*l.* per month, and will enter on his duties immediately. The extremely wet weather of last week has been much felt, causing great inconvenience. The River Calder was on Friday swollen to an unusual degree. Some members of the board of directors and the solicitor to the company were placed in a very awkward position, if not in jeopardy. After the board meeting, in going from Lochwinnoch to the railway station, in Mr. Watkins's omnibus, the road was so flooded that the gentlemen were driven into the water suddenly to such an extent as to render a return necessary. It was with difficulty that Mr. Watkins extricated them all safely. It was well that he was with the vehicle, being a very powerful man, for, although standing 6 ft. high, the water reached his breast. The party, after changing their wet garments, proceeded homewards by way of Birth, fortunately without other damage than an unpleasant bath. It is much to the disgrace of the authorities that the road should be allowed to remain in so dangerous a state as at present, when it can be so easily remedied. Every winter the floods render this place impassable to foot passengers, except at great personal danger and inconvenience.

At WEST SHARP TOR the prospects are very much improved. Morris's engine-shaft has been sunk and made complete to the 162, and 2 fathoms driven east on the north side of the lode. At this point the cross-cut was commenced, and has been extended into the lode about 7 feet 6 inches. The first 6 feet is in hard capel, similar to that found in connection with fine courses of ore in this locality; inside this capel soft gossan has been found, as well as iron, congenial quartz, prian, and a little grey copper ore. A course of ore is expected as this part of the lode is opened out. The machinery is in good order, and adequate to the requirements of the mine. Capt. W. Richards estimates the cost to carry out the operations in hand at 230*l.* per month.

WEST WHEAL LOVELL continues to excite unusual attention in the locality and surrounding neighbourhood of Helston. From the fact that pumping operations only commenced in February last, and the discoveries made in the bottom of the mine (both east and west) since, warrant the shareholders in the belief that a rich mine will soon be opened out to them. Both ends are producing a fair quantity of rich lead ore. There are two shafts being sunk below the 10 fathom level, and the ground is highly congenial for the production of lead ore. The several agents who have inspected this property are unanimous in their opinion as to the ultimate value of the undertaking. The sett, which is very large, embraces several known rich copper and also tin lodes, which is a very great advantage, and enables me to state that West Wheal Lovell will prove a prize for the year 1862.

BULLER AND BASSET.—The lode in the 80 west is 4 feet wide, very kindly, and is producing rich stones of ore. The lode in the 60 west is of the most kindly character, and producing some good strong copper ore. The ends are very promising, and, from the strength and character of the lode, an improvement is expected.

CUDDRA.—An important discovery has been made in the 100 west at Tickell's shaft. After driving across a mass of fine gossan for near 4 fathoms in width, the tin part of the lode has been reached; it is cut into 1 foot, and is producing splendid work for tin. This run of tin ground is supposed to be the same as that at Walker's shaft, as it is identical in character. This discovery is 90 fathoms east of Walker's shaft, in which there is a great course of tin. The agents consider this to be the same run of tin ground, which would be upwards of 90 fathoms long, and 40 fathoms deeper than the 60 fm level. This discovery is of the greatest importance to the company, and will place the success of the undertaking beyond a doubt. The lode in Walker's shaft has not been taken down during the week; when last taken down it was worth 7 cwts. 1 qr. 21 lbs. per 100 sacks, and is left equally good. It will be taken down again in the course of the week.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, December 6, 1861.

COPPER.	£	s.	d.
Best selected....p. ton	110	10	0— —
Tough cake..... „	107	10	0— —
Tile ..... „	107	10	0— —
Burra Burra .... „	104	0	0–(Nom.)
Copiapo ..... „	98	0	0–100 0 0
Copper wire .....p. lb.	0	1	2 — —
ditto tubes ..... „	0	1	2 — —
Sheathing & bolts .. „	0	1	0 — —
Bottoms ..... „	0	1	1 — —
Old (Exchange) .... „	0	0	10¼– —

IRON.	Per Ton.
Bars, Welsh, in London..	6 5 0— —
Ditto, to arrive	6 0 0— —
Nail rods	7 0 0— —
„ Stafford. in London	7 0 0– 7 10 0
Bars ditto	7 5 0– 8 0 0
Hoops ditto	8 10 0– 9 0 0
Sheets, single	9 0 0– 9 10 0
Pig, No. 1, in Wales ..	3 0 0– 4 0 0
Refined metal, ditto....	4 0 0– 5 0 0
Bars, common, ditto....	5 0 0— —
Ditto, merchant, in Tees	6 10 0— —
Ditto, railway, in Wales	5 5 0— —
Ditto, Swed. in London.	11 10 0–12 0 0
To arrive	12 0 0— —
Pig, No. 1, in Clyde....	2 8 0– 2 18 0
Ditto, f. o. b. in Tees ..	— — —
Ditto, forge, f.o.b. in Tees	— — —
Staffordshire Forge Pig.	3 10 0– 3 12 6
Welsh Forge Pig	— — —

LEAD.			
English Pig	20	0	0–21 0 0
Ditto sheet	21	0	0— —
Ditto red lead	22	10	0— —
Ditto white	28	10	0–30 0 0
Ditto patent shot	22	10	0–23 0 0
Spanish	19	10	0–19 15 0

* At the works, 1s. to 1s. 6d. per box less.

BRASS.	Per. lb.
Sheets	10d.–11d.
Wire	10½d.— —
Tubes	10¾d.–11¾d.

FOREIGN STEEL.	Per Ton.
Swedish, in kegs (rolled)	15 0 0— —
„ (hammered).	15 10 0–16 0 0
Ditto, in faggots	16 0 0–17 0 0
English, Spring	18 0 0–23 0 0
Bessemer's, Engineers Teel	44 0 0— —
„ Spindle	30 0 0— —
QUICKSILVER	7 0 0 p. bottle

SPELTER.	Per Ton.
Foreign	18 0 0— —
To arrive	18 5 0–(Nom.)

ZINC.	
In sheets	24 0 0— —

TIN.	
English, blocks 120	0 0–(Nom.)
Ditto, Bars (in barrels)..121	0 0— —
Ditto, Refined 122	0 0— —
Banca 121	10 0–122 0 0
Straits 118	0 0–120 0 0

TIN-PLATES.*			
IC Charcoal, 1st qua. p. bx.	1	8	0– 1 9 0
IX Ditto 1st quality „	1	14	0– 1 15 0
IC Ditto 2d quality „	1	4	6– 1 6 6
IX Ditto 2d quality „	1	11	0– 1 13 0
IC Coke ..... „	1	2	0– 1 2 6
IX Ditto..... „	1	8	0– 1 8 6
Canada plates ....p. ton	12	10	0–13 0 0

In London; 20s. less at the works.

Yellow Metal Sheathing .... p. lb. 10d.

Indian Charcoal Pigs in London 6 12 6– 6 15 0

REMARKS.—The serious aspect of American affairs has caused considerable stagnation in our market, all business during the week being comparatively at a standstill. This is, however, only the temporary effect of the existing uncertainty, and whichever way the present difficulty may be decided, our trade will again, doubtless, flow on in its wonted channels, but at present buyers suspend operations, and sellers have not yet shown any inclination to unduly press sales, except in the cases of a few timid or weak holders, who have realised, of course, at some sacrifice; the majority, however, prefer to stand quietly aloof for a time, until the issue of the momentous question—"peace or war"—is definitely known. Even should the reply be so unfavourable as to lead to hostilities between this country and the Northern States of America, there is but little reason to fear that the metal trade would be very injuriously affected, as the passing of the Morrill Tariff has almost entirely prevented exports of metals thither, by rendering the duties nearly prohibitive, and, therefore, little or no further loss of trade can be incurred in that quarter; but, on the contrary, we should have the southern ports of America open to commerce, which in itself would make ample amends for the loss of the extremely limited trade that is now carried on with the North. With regard to the demand for India and other parts, there will probably be no diminution. The continued easiness of our money market will assist holders in maintaining with steadiness the present position of metals.

The foregoing remarks apply with but little variation to all the metals, a very short summary of each, therefore, will suffice.

COPPER.—English continues quiet; there are, however, some second-hand parcels in the market offering under fixed rates. Foreign quiet—quotations nominal. Burra Burra, 104*l.*; Kapunda, 106*l.*; Spanish, 93*l.*; Chilli, 93*l.*; Baltimore, 91*l.*

IRON.—The price for railway bars has slightly receded, present quotations being 5*l.* to 5*l.* 2s. 6d., f.o.b. at the works. Merchant bars in fair request at 5*l.* 2s. 6d. to 5*l.* 5s. in Wales. Staffordshire descriptions slow of sale, and rather easier in price. Swedish bars remain firm, with an upward tendency in price. The arrivals in consequence of the scarcity of vessels and high rate of freights ruling in Sweden are very limited, and soon will cease altogether for this season from most Swedish ports, as the navigation will most probably in a short time be closed by ice. Scotch pigs, mixed numbers, have declined to 48s., nominal.

LEAD.—No sales. The Royal Proclamation prohibiting shipments has put a stop to business, and caused the market to wear a downward aspect.

TIN.—The speculative demand existing last week has entirely ceased, and the prospect of a rise in English is now reversed, the American news having proved disastrous to the market. An advance would undoubtedly have taken place, the deliveries in Holland of Banca being very large, and several thousand slabs of Straits having been sold here at rising prices—for arrival, 122*l.*, and 120*l.* cash. The price has now gone back at least 2*l.* per ton in Straits, and 2 fl. in Banca.

SPELTER.—Nothing doing—price declining—nominal value, 18*l.* but no buyers.

STEEL.—Foreign remains steady at 15*l.* 10s. to 16*l.* for Swedish keg; faggot, 16*l.*

LIVERPOOL, DEC. 5.—Our market continued steadily to revive up to last week, when the news of the American outrage on board the *Trent* reached this country, since then little business has been transacted. The general opinion here is that a rupture will take place in our relations with the Northern States, and, as a consequence, buyers are not disposed to operate. Staffordshire iron, however, remains without noticeable change in price. Welsh bars are rather lower, and good makes can be had at 5*l.* 2s. 6d. to 5*l.* 5s. at the shipping port. Scotch pigs have been reduced 1s. 6d. to 2s. per ton, with still a downward tendency. Copper was advanced ¼d. per lb. on Nov. 25, but it has not been well sustained. The demand is comparatively small, and orders can be placed under the nominal price. Lead has advanced about 10s. per ton, but it is doubtful if this can be maintained, now that the Government has prohibited its export. Block tin shows no change in price. Tin-plates are dull of sale. Spelter quiet, and rather lower.

COAL MARKET.—On Monday, 53 fresh ships arrived. The market was more depressed than for some time past, the top price of house coal being reduced to 18s. 6d. per ton, and only a moderate amount of business done. Hartley's were dull, and 3d. per ton lower. Manufacturers' steady, and without alteration in value. Best house coal, 18s. to 18s. 6d.; seconds, 15s. 6d. to 16s. 6d.; Hartley's, 14s. 6d. to 15s. 6d.; manufacturers', 13s. to 15s. per ton.—On Wednesday, 127 arrivals. There was more demand for house coals generally, but the supply exceeds it, and prices are without alteration. The quantity of Hartley's and manufacturers' was large, and a little reduction in price was submitted to. Best house coal, 18s. to 18s. 6d.; seconds, 15s. 6d. to 16s. 6d.; Hartley's, 14s. to 15s.; manufacturers', 13s. to 14s. 6d. per ton.—On Friday, a further arrival of 49 ships. The market opened dull for house coal, but on a reduction of 6d. per ton being made the demand was stimulated, and pressure removed. Hartley's, were in fair request, and, upon the whole, a shade higher in price. Manufacturers' without alteration. Best house coal, 17s. 6d. to 18s.; seconds, 15s. 6d. to 16s.: Hartley's, 14s. to 15s. 3d.; manufacturers', 13s. to 14s. 6d. per ton: 31 cargoes unsold—80 ships at sea. Importation of coals into London by sea in the month of November 947 ships, containing 322,431 tons, being an increase on the corresponding month last year of 38,717 tons. Importation of coals into London by railways and canals in the month of November, 141,082 tons, being an increase on the corresponding month in 1860 of 5819 tons.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt, we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in November was 47,462 tons, and in the corresponding month of last year 31,663 tons, showing an increase last month of 15,799 tons. The total shipments from January to November were 600,465 tons; same period of 1860, 581,946 tons—increase this year, 18,519 tons. The exports of coal (coastwise) during November were 9754 tons; same month last year, 17,232 tons—decrease last month, 7478 tons. Total coastwise from January to November, 83,256 tons; same period in 1860, 144,069 tons—decrease in present year, 60,813 tons.

The American question is still the all-absorbing topic of conversation, and the late demand for lead is explained by the fact that for the last month or two the Americans have been buying it up. The question now arises, what effect will the prohibition to export lead have upon the market, and, consequently, upon the price of lead ores which do not contain any great percentage of silver? Fortunately, so far, our principal lead mines in Cornwall and Devon produce ores above the average yield for silver; and last year the Cornish lead ores produced 180,757 ozs.; the Devon mines, 53,059 ozs.; some of the mines produce 40 ozs. to the ton of lead, at a value of 5s. 6d. per ounce. The total quantity of silver extracted from the lead ores raised in the United Kingdom last year was 549,720 ozs. We mention these facts, as they may be interesting at a time when various opinions will be expressed as to the probable state of the lead market, and also to show that a fair price may always be calculated upon for ores yielding silver in such quantities as we have described.

In the MINING SHARE MARKET this week there has been a moderate amount of activity, and so far no ill effects have arisen from the causes which have influenced the Stock and Railway Markets. Dividend mines are in request, and there is a good deal of speculative business doing. East Caradon shares leave off firm at 27½ to 28; the last report values the 60 east, on the caunter lode, at 50*l.* per fm.; Fawcett's lode, at this level east, 10*l.* per fm.; the 50 east, on the caunter lode, worth full 100*l.* per fm., and easy for working. Condurrow, 50 to 60; a circular has been issued by the purser, stating that Pryce's shaft has proved to be in a much worse condition than anticipated; this has occasioned a great delay in opening out the tin lode in the bottom of the mine, and has "rendered it inexpedient to call the adventurers together earlier than the second Wednesday in February." At the last meeting, in October, the mine was in debt 3240*l.* 6s. 9d., and a call was not made to pay it off, as it ought to have been under the Cost-book System; and according to the circular just issued, no further meeting is to be held till February, by which time it is presumed the debt will have been increased rather than diminished. Had a call been made at the last meeting, to pay off the debt and put the mine into a proper position, it would, upon the report then furnished, have been cheerfully responded to, and shares, assuming the report to be correct, would have been by this time 150*l.* each, instead of little more than half the price they were got up to soon after the last meeting. According to the report now circulated by the purser, the shaft is worth for tin 180*l.* per fathom for the length of it; the 165 east is worth 150*l.*; the 165 west is worth 80*l.*; the winze under the 155 is worth 100*l.*; the stopes in the back of the 155 are worth 30*l.*; the winze under the 40 is worth 50*l.* per fm.; copper bargains are worth in the aggregate 150*l.* per fm. This report is circulated officially, and if we assume it to be strictly correct, why should such a mine be allowed to continue with a heavy debt upon it? And if, as we find, very great differences of opinion exist as to the real state of the mine, it is so much the more necessary that an early meeting should be held. West Basset, 13¼ to 14¼; in Grenville's engine-shaft, now 2 fms. under the 94, the lode has much improved, and now 4 ft. wide, producing 5 tons per fm., or 10 tons for length of shaft. Wheal Union shares have not been so firm, and leave off 2 to 2¼; in the 46, east of Moyle's shaft, the Turnpike lode is reported as 6 ft. wide, worth for tin about 50*l.* per fm. Wheal Basset, 80 to 85; at the meeting, on Tuesday, the accounts showed a profit of 1638*l.* 4s. 5d. on the two months, and a dividend of 2*l.* per share (1024*l.*) declared, leaving 1549*l.* 2s. 8d. in hand; the report states that, although the levels are at present rather poor, yet there are several points to come off shortly, which, if they prove productive, will add considerably to the value of the mine.

East Carn Brea shares have fluctuated almost hourly, and there are as many reports, and as many different opinions expressed in connection with them, as there used to be about East Russell reports, in its speculative and jobbing days. That East Carn Brea, however, is in a very rich district, has in it the elements of great success, and is under the financial management of gentlemen in London of the highest standing and respectability, is acknowledged by all, and we hope we shall not see it become a mere jobbing mine for local agents and their friends. The shares leave off 9⅜ to to 9¾. The latest official report states, "We have cut the lode in the 26, to the east of the cross-course, and driven 2½ feet into ore, but have not reached the south wall." Botallack have reached 230 to 240, and much in demand. South Caradon largely dealt in at 330 to 340. Tincroft have advanced to 7¾, 8. Devon Great Consols, 365 to 375; the south lode in the 40 east, west of Barnett's cross-cut, at Hitchins's shaft, at Wheal Josiah, is worth 12 tons of copper ore per fm.; the rise in the back of this level 6 tons. Alfred Consols, 12s. to 14s.; Calvadnack, 7 to 7⅛; Cook's Kitchen, 28½ to 29½; Drake Walls, 18s. to 20s.; East Basset, 60 to 65; East Devon Consols, 1⅞ to 2⅛. Prosper United, 1⅝ to 2; the 30, west of ladder-road shaft, still improves both in size and quality; it is now 4 feet wide, and will yield over 6 tons of copper ore per fm.; a part of the lode on the north side is also producing rich work for tin. The agents state that "it is a very valuable lode, which we consider an important discovery, making all in whole ground." They have begun to drive the 20, west of the same shaft, and the lode has this week increased in size from 1 foot to 18 inches wide, and this end is only a few fathoms behind the 30, where the lode has so much improved as above. West Par, 3s. 6d. to 5s., the mine improving; the 65 end is worth 1½ cwt. of tin per 100 sacks, and the winze below the 55 is worth 15*l.* per fm.; the 55 end is suspended till better ventilated, and the men put to take down some lode in the back of this level, where it produces excellent work for tin; there are five pitches at work, and the tributers are working with spirit. East Wheal Russell, 2⅞ to 3; East Wheal Grenville, 30s. to 32s. 6d. Grambler and St. Aubyn shares have advanced to 18, 20. Great Wheal Fortune, 12 to 13. Herodsfoot, 38 to 39. Rosewall Hill and Ransom shares have been great demand all the week, and reached 3*l.*, buyers, but leave off 55s. to 60s. Hingston Down, 3¾ to 4; Lady Bertha, 13s. to 15s. West Caradon shares largely dealt in at 50 to 53, leaving off 51 to 53. Marke Valleys have advanced to 10½ to 10⅝; North Basset, 2¾ to 3; North Crofty, 1⅞ to 2; North Downs, 5½ to 5⅝; North Robert, 19s. to 21s.; North Treskerby, 23 to 25; Par Consols, 7 to 7¼; Providence Mines, 39 to 41; Sortridge Consols, 12s. to 13s.; South Frances, 87½ to 90; Stray Park shares flatter, at 31 to 32. Tamar Consols, 1⅛ to 1⅛; Wendron Consols, 10¼ to 10¾. West Fowey, 3 to 3¼, and a large business done. West Polmear, 5s. to 7s.; West Seton, 290 to 300. Wheal Arthur shares have advanced to 16s., 18s. Wheal Buller, 75 to 80; Wheal Clifford Amalgamated, 30 to 31; Wheal Grenville, 30s. to 32s. 6d.; Wheal Grylls, 13 to 14; Wheal Ludcott, 2¼ to 2½; Wheal Margaret, 42 to 44, and more in demand. Wheal Mary Anne, 16 to 17; Wheal Moyle, 2¼ to 2¾. Wheal Seton shares have been in good demand all the week, and leave off 125 to 130. Wheal Trelawny, 16¼ to 17; Wheal Uny, 4¼ to 4⅜; Great Retallack, 15s. to 17s.; East Budnick and Mount, ¼ to ⅜; Bottle Hill, 12s. to 14s. Wheal Unity, 14s. to 15s.; the lode has been cut into 2 ft. at the 75, and also at the 50, and next week more will be known about it; at present the ends are mixed up with the cross-course. Trumpet United, ⅜ to ½; the lode is worth 15*l.* per fm. for tin in the 15 west. Redmoor shares in demand at 4s. to 5s. Great Wheal Vor, 6¼ to 7; West Rose Down, 10¼ to 11¼. Long Rake, 14 to 14¼; the 48 east has improved to 1 ton of ore per fathom; the mine, we hear, will sell 45 tons of lead ore on Thursday for the month. Bryn Gwiog, 26 to 28; the 75 end west has improved to 2 tons per fm.; the stope east of No. 1 winze, under the 55, is worth 5 tons per fathom. Billins, 19 to 20.

Transactions in Mining Shares on the Stock Exchange have been rather extensive during the week. The following prices were officially recorded n British Mining Shares:—Great South Tolgus, 4⅞, 4½; Hingston Down,

3⅞; Tincroft, 7⅛; West Basset, 13⅛, 13⅛, 13⅛, 13¾; Wheal Edward, 3; East Caradon, 27⅛, 27¼, 27⅛, 27⅓; East Carn Brea, 9⅞, 10, 10⅛, 10; Grambler, 17, 18, 17½; Great Wheal Vor, 7⅛, 6⅞, 6¼; West Caradon, 52; Wheal Basset, 80; Margaret, 40; Stray Park, 32; South Caradon, 335. In Colonial Mining Shares the prices were:—Australian, ⅜; Bon Accord, ½, ⅜, ½; Dun Mountain, 1⅛, 1, 1⅛; Port Phillip, 1⅛, 1⅛, 1⅛; Scottish Australian, 1; Great Northern Copper of South Australia, 1⅛, 1⅛, 1⅛, 1⅛; Kapunda, 2. In Foreign Mining Shares the prices were:—Dun Mountain, 1½; Linares, 7⅞; United Mexican, 8⅛, 7⅞, 8, 7⅞, 8⅛, 8; East del Rey, 1⅛, 1⅛; Mariquita, ½; St. John del Rey, 50½, 50½, 49½, 48½.

The closing quotations for shares in new undertakings were:—East del Rey Mining, ⅛, ¼ prem.; Santa Barbara, par to ¼ prem.; Hindostan Copper, ⅛, ⅜ prem.; and Mwyndy Iron Ore, par to ¼ prem. Ocean Marine Insurance, 4⅛, 4¼ prem.; Thames and Mersey Marine, ¾, 1 prem.; Universal Marine Insurance, 1¼, 1½ dis.; London and Provincial Marine, ⅛, ⅜ dis.; Mercantile Fire, ¼, ⅜ prem.; Commercial Union Fire, ⅜, ⅛ dis.; Indian Carrying Company, par to ¼ prem.; and Venezuela Cotton, ¼, ¼ pm.

The uneasy tone pervading the Money Market generally has affected dealings to a great extent in Foreign and Colonial Mining Shares during the week; and in Port Phillip, St. John del Rey, and United Mexican, the quotations are lower than those of last week; while East del Rey, Hindostan Copper, and Santa Barbara, are firm. Great Northern have been dealt in at 1¼, 1⅜ 1½, and leave off at 1¼, 1⅜. St. John del Rey, 48½, 49; East del Rey, 1¼, 1⅜; Worthing nominal, at 10s., 11s.; United Mexican, 7¾, 8. Dun Mountain shares firm, at previous quotations, 1 1¼; Scottish Australian, ⅞, 1⅛; Port Phillip, 1⅛, 1⅜—a considerable decline in price; Kapunda, 2.

MINING EXCHANGE SHARE LIST.—The following is forwarded to us officially from the Mining Exchange as business done during the week:—

SATURDAY, Nov. 30.—Wheal Union, 3⅝; Stray Park, 32¼; Grambler, 16½, 15¼, 16⅛; Tincroft, 7⅛; Wheal Seton, 120¼, 121, 122½, 123, 125, 126; Alfred Consols, 14s; East Caradon, 27⅛; West Seton, 296; Wheal Edward, 55s 6d.

MONDAY.— Wheal Edward, 2¾, 13-16ths; Wheal Union, 3; West Polmear, 5s, 7s; Marke Valley, 10, ⅛, ¼, 5-16ths; North Crofty, 40s, 39s; East Caradon, 27⅜; Stray Park, 32½, ¾; East Carn Brea, 9¾; Herodsfoot, 38¼, ½; Wheal Seton, 126, 124; Wheal Grylls, 16¼, 17, 16⅞; West Caradon, 48, 49; Bryn Gwiog, 26½; Long Rake, 14¼; West Penstruthal, 350.

TUESDAY.—West Caradon, 51¼, 51, 52; Wheal Seton, 122½, 123, 124, 125; East Carn Brea, 9⅜, ⅝, ½, ¾, ⅛; Clifford Amalgamated, 31; Wheal Edward, 2¾; Tincroft, 7¾; North Treskerby, 23¼; Wheal Grylls, 15¾; North Basset, 3⅞ 3s 6d; Wheal Hearle, 20.

WEDNESDAY.—North Downs, 5⅛; Stray Park, 32, 31¼, ¾; East Carn Brea, 9½, 9-16ths, ¾, 13-16s, ⅞, ¾; East Caradon, 27⅜, ½; Wheal Hearle, 20; Alfred Consols, 14s; Grambler, 18½, 20; Wheal Norris, 44s; West Caradon, 51, 50½; Wheal Grylls, 15½; Wheal Edward, 2¾; West Seton, 293½; Wheal Margaret, 40, ½, ¾.

THURSDAY.—Wheal Margaret, 42; East Caradon, 27⅜, ⅝; Wheal Seton, 127, 126½, 126, 127½; North Crofty, 38s; Stray Park, 31½; Wheal Grylls, 15⅜, 5-16ths; Wheal Hearle, 17; East Carn Brea, 9¾; Wheal Unity, 14s, 14s 9d, 15s; West Wheal Margaret, 12s 6d; 15s.

FRIDAY.—Stray Park, 31½, ¼, ⅛, ⅜; Wheal Union, 2⅜, ¼; West Par, 4s 6d; Sortridge Consols, 13s 3d; North Downs, 5⅛; Wheal Uny, 4½; Wheal Grylls, 15¼, ⅛; East Carn Brea, 9 16-16ths, ⅞, 10; North Basset, 2¾; Wheal Seton, 127, 126¾, 127¼; West Caradon, 51, ¼; East Grenville, 31s.

IRISH MINE SHARE MARKET.—Government, Railway, and Bank securities have all experienced a slight fall, with a depression for further transactions. Dividend-paying mines are in steady demand, at an improvement in Wicklow Copper shares of 2*l*. 10s. on last week's closing price of 53*l*., 55*l*. 10s. being now freely offered. Mining Company of Ireland shares suffered a smart reduction during the week, but have recovered, and are enquired for at 15*l*. 5s. Speculative mines are not in favour at this moment. General Mining Company for Ireland shares are neglected, although the Chairman at this week's half-yearly meeting of the shareholders congratulated them "on the successful working of the machinery erected for the dressing of the company's large deposit of calamine," and holds out hopes that the proprietors will soon have satisfactory results from the sale of metallic zinc and ochre. In Carysfort shares nothing is doing, and Connorree shares are on sale at 31s. 6d., and business unimportant.

Frequently and energetically as we have endeavoured to express our ideas on the subject of the elasticity of British mining interests, we could hardly have hoped for such instant and so decided proofs of the correctness of our position as the experiences of the last two or three weeks have so decidedly and satisfactorily demonstrated. We claim, and we think our pretensions will be admitted, that we possess unusual facilities for judging the probable future of mining interests—that is, so far as human judgment, based on facts, can be founded. Our columns weekly teem with papers and information from experienced pens, going into minutiæ, detailing particularities, which we, for obvious reasons, as journalists hold it our duty and province studiously and invariably to avoid. A careful re-perusal of a few numbers of the *Mining Journal* will show it therein stated that the late decline in metals, and in the mining market, would be but temporary, that the fall therein was not produced by any reasonable or legitimate causes, or by a present or anticipated decrease in consumption to an amount any way equivalent to the extent of the depreciation, and that it arose entirely from some vague, undefined idea and groundless fears. Some of our best advised and most extensive operators in the mining market unhesitatingly proclaimed that a rise of the metals must from very necessity soon take place; that when this should happen, or any discoveries of importance in mines should be made, of which there was a singular absence, an immediate and great advance would ensue; they strenuously advised their friends to invest at the then very low rates at which good veritable stocks might have been purchased, and fortunate were they who acted on the recommendation. Both the predicted important elements of success have appeared, and the consequences so confidently asserted have been realised; metals and their ores have materially advanced, and shares in good mines have been proportionally benefited. We hold it our duty to keep before the public the important fact, that few if any securities offer that permanent and high remuneration British mining affords; in saying this, we must necessarily be understood not to express that opinion individually to every scheme brought before the public under that denomination; but we speak advisedly, when we state that well and carefully selected stock affords, at least, as secure investment, and greater profits, than almost any branch of legitimate British industry. It should be held in remembrance that mining business is more or less speculative; that all interests have their vicissitudes, and from them we do not claim for mining an exemption. We acknowledge mining to be speculative, but not nearly to the extent that it is generally supposed to be. That the mere speculators in the business should not be successful in every instance is not to be wondered at, especially when we consider the reckless folly with which some men enter on a career that requires the utmost caution; but because such are not always fortunate, or they be victimised, mining *per se* should not be condemned, nor should it be by a temporary depression in the value of its produce or its stock. We repeat, that to the *bona fide* investor, not to the mere speculator, who is biased by every report, or alarmed at every occasional and transient lull, mining has afforded, does and will afford, a perfectly legitimate, secure, and desirable channel for laying out spare capital as can be commanded, or as the most fastidious and careful calculator can conceive.

At Redruth Ticketing, on Thursday, 4679 tons of ore were sold, realising 26,704*l*. 12s. 6d. The particulars of the sale were—Average standard, 136*l*. 2s.; average produce, 6¼; average price per ton, 5*l*. 14s.; quantity of fine copper, 290 tons 14 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Nov. 7	3419	£138 15 0	6½	£5 15 6	£94 1 0
„ 21	6213	139 2 0	5¾	5 6 0	91 12 0
„ 28	4148	138 15 0	5⅞	5 7 6	91 11 6
Dec. 5	4679	136 2 0	6¼	5 14 0	91 17 0

Compared with the sale of last week, the standard remains about stationary. Compared with the corresponding sale of last month, the decline has been in the standard 1*l*. 15s., and in the price per ton of ore about 2s. 3d.

At the Swansea Ticketing, on Nov. 26, 1380 tons of ore were sold, realising 16,034*l*. 15s. The particulars of the sale were—Average standard, 119*l*. 17s.; average produce, 11 9-16; price per ton, 11*l*. 12s. 6d.; quantity of fine copper, 159 tons 11 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore cop.
Oct. 29	1146	£117 5 3	10 5-16..	£ 9 17 6	£96 0 0
Nov. 12	1485	116 7 0	12 15-16	12 16 0	98 18 0
„ 26	1380	119 17 0	11 9-16..	11 12 6	100 10 0

Compared with last sale the advance has been—in the standard, 1*l*. 15s.; and in the price per ton of ore about 4s. Compared with the corresponding sale of last month the advance has been—in the standard 4*l*., and in the price per ton of ore about 9s. 3d. Of the 1388 tons of copper ore sold on Tuesday, 1192 tons were from British mines, which gave an average produce of 10½, and sold at an average standard of 122*l*. 1s. 6d.=10*l*. 2s. per ton of ore. The remaining 188 tons were foreign ores, which gave an average produce of 20¾, and sold at an average standard of 112*l*. 17s. 6d.=21*l*. 6s. per ton of ore. On Dec. 10 there will be offered for sale 1450 tons of ore from Cobre, Knockmahon, Berehaven, Ballycummisk, Laxey, West Kaime, Turkey, Connorree, Cronebane, and Tigrony.

At Wheal Basset meeting, on Tuesday, the accounts for Sept. and Oct. showed—Balance last audit, 934*l*. 18s. 3d.; ore sold (deducting 287*l*. 4s. 1d. dues, at 1-15th), 4020*l*. 17s. 4d.; sundries, 3*l*. 2s. 1d. = 4958*l*. 17s. 8d.—Mine cost, merchants' bills, and sundries, 2385*l*. 15s.: leaving credit balance, 2573*l*. 2s. 8d. The profit on the two months' working was 1638*l*. 4s. 5d. A dividend of 1024*l*. (2*l*. per share) was declared, and 1549*l*. 2s. 8d. carried to credit of next account. Capts. Pope, Juliff, jun., and Middleton reported upon the various points of operation. The pitches throughout the mine are still producing fair quantities of copper and tin ores. Although their levels are at present rather poor, yet they have several points to come off shortly, which, if they prove productive, will add considerably to the value of the mine.

At Boscean Mine meeting, on Tuesday, a dividend of 300*l*. (1*l*. 5s per share) was declared.

The Tincroft Mining Company declared a dividend of 5s. per share on Thursday. This is the thirtieth dividend already paid, amounting to 10*l*. 18s. 6d. on each 9*l*. share.

At Balleswidden Mine meeting, on Nov. 26, the accounts showed—Mine cost for three months ending September, 3409*l*. 5s. 10d.; coals, 360*l*. 1s. 5d.; carriage, 174*l*. 17s. 7d.; merchants' bills, 1602*l*. 10s. 4d.; dues, 113*l*. 8s. 10d.=5660*l*. 4s.—Tin sold, 3743*l*. 12s. 5d.: leaving debit balance, 1916*l*. 11s. 7d. The excess of expenditure has been caused by the erection of the new engine, plant, &c.

At the Great Work Consols meeting, on Nov. 26, the accounts showed—Balance last audit, 1548*l*. 11s.; mine cost, July, Aug., and Sept., 3196*l*. 6s. 3d.; merchants' bills, 1081*l*. 7s. 7d.; carriage, 210*l*. 4s. 3d.; dues, 168*l*. 13s. 7d.=6205*l*. 2s. 8d.—Black tin sold, 4723*l*. 1s. 3d.; carriage, 7*l*. 11s. 7d.: leaving debit balance, 1474*l*. 9s. 10d. The report of the agents, Capts. N. Tredinnick, T. Edwards, and J. Johns, stated there were 14 tutwork bargains, working by 67 men and 7 boys, and 67 tribute pitches, working by 168 men at 12s. 6d. in 1*l*., at 60*l*. per ton and 10s. in 1*l*. at the present price of tin. The quantity of tin sold for the three months was 62 tons 7 cwts. 3 qrs. 10 lbs., average price per ton, 75*l*. 11s. 4d. The total number of hands employed underground was 235 men and 7 boys.

At the Alfred Consols Mine meeting, on Nov. 25, the accounts showed—Balance last audit, 1650*l*. 8s. 2d.; mine cost, July and Aug., 1128*l*. 1s. 1d.; merchants' bills, 576*l*. 18s. 9d.; doctor and club, 16*l*. 15s. 2d.: subsist advanced, 99*l*.=3471*l*. 3s. 2d.—Copper ore sold, 1548*l*. 18s. 8d.; call made, 1642*l*. 13s. 4d.: leaving debit balance, 279*l*. 12s. 2d. The loss upon the two months' working was 271*l*. 16s. 4d. Capt. S. Uren having tendered his resignation, it was agreed that the same be accepted, and that an agent to succeed him be advertised for. The agents' report stated that during the past month they had had a very important improvement in two pitches. At the last sampling they sold 257 tons of ore, which realised 1495*l*., incurring a loss upon the two months of 300*l*., and they calculated on sampling at their next sampling-day 300 tons, worth 1800*l*., which would pay the cost of the mine upon a loss of about 200*l*. on the two months' working.

At the Wheal Falmouth and Sperries Mines meeting, on Nov. 28, the accounts to end of August showed a credit balance of 182*l*. 6s. 3d. The sales included mundic, 2015*l*. 14s. 11d.; gossan, 1219*l*. 1s. 4d; lead, 139*l*. 1s. 2d.; copper, 35*l*. 3s. 8d.; and tin, 6*l*. 19s. 8d. Capts. W. Kitto reported on the mine: they state "Our returns have enabled us to meet the expenditure, and had the price of mundic kept up to what it was last year, our book to-day would have presented a much better balance in favour of the adventurers."

At the Gonamena Mine meeting, on Nov. 28, the accounts for July and Aug. showed a debit balance of 411*l*. 5s. 10d. A call of 2s. 6d. per share was made, and the purser was directed to procure the services of an experienced captain to inspect and report on the general prospects and best mode of working the mine for the future. The next sampling will be about 100 tons of copper ore.

At South Crofty Mine meeting, on Tuesday, a call of 10s. per share was made.

At West Wheal Trevelyan meeting, on Thursday (Mr. H. Foord in the chair), the accounts for Sept. and Oct. showed—Balance last audit, 202*l*. 0s. 1d.; mine cost, merchants' bills, and sundries, 1063*l*. 19s. 5d. = 1265*l*. 19s. 6d.—Calls received, 505*l*. 3s. 10d.; ore sold, 414*l*. 7s. 1d.: leaving debit balance, 346*l*. 8s. 7d. A call of 10s. per share was made. Capts. Odgers and Osborn reported upon the various points of operation. They are employing underground 46 men and 5 boys; and at surface, including enginemen, &c., 12 men and 17 boys and girls.

At Wheal Henry meeting, on Monday, the accounts showed a debit balance of 206*l*. A call of 4s. per share was made.

At the Dulta Tin Mining Company meeting, held in Liverpool, on Nov. 28, in lieu of making a further call, some of the shareholders advanced 600*l*. (in addition to increasing their interest from the new shares recently created), for the purpose of providing funds for the extra machinery and completing the dressing-floors. The new engine will be erected for pumping and winding, while the present will be altered to carry 40 or 50 heads of stamps. The report from the mine was considered satisfactory; the tribute pitch on Butt's lode, 10 fms. in advance of the bottom end, having improved.

At Wheal Concord board meeting, on Nov. 25, it was resolved to issue a statement to the shareholders explaining the precise position and prospects of the undertaking—the progress made, and the necessity for raising an additional 3000*l*., by the issue of the unallotted shares, for the completion of the machinery and the efficient development of the mine. The pump is working well, and during the winter months the water-wheel will give ample power, though in the summer months a small portable engine has been necessary to assist it.

At Wheal Hearle meeting, yesterday, the accounts for Aug. and Sept. showed—Mine cost, merchants' bills, and sundries, 1689*l*. 11s. 9d.—Balance last audit, 172*l*. 9s. 10d.: calls received, 979*l*. 2s.: leaving debit balance, 537*l*. 19s. 11d. Mr. Jas. Hollow reported that the prospects of the undertaking were fully as good as at the last meeting. He regarded their chances of discoveries during the current quarter as being most favourable. The sales of tin would enable them to show a profit sufficient to pay off the above debit balance, and leave a surplus at disposal. Capt. Thomas Uren, who has specially inspected the mine, and Capts. Rutter, jun., and Wesley, the resident agents, also reported very favourably upon the position and prospects of the adventure.

At the Great Brigan Mine meeting, on Thursday (Mr. Eves in the chair), the accounts showed a debit balance of 1427*l*. 7s. 6d. A division of the back costs was made, which amounted to a call of 5s. per share. The appointment of Mr. E. King as secretary was confirmed, and a committee of management were appointed. Details in another column.

At the St. Day United Mines meeting, on Monday (Mr. J. Balster in the chair), the accounts showed a credit balance of 47*l*. The committee of management were re-elected. Details appear in another column.

At Carn Vivian Mine meeting, on Nov. 26, the accounts showed a debit balance of 243*l*. 14s. A call of 2s. per share was made.

At the West Sharp Tor Mine meeting, on Wednesday (Mr. P. Cotton in the chair), the accounts for three months ending October showed—Balance last audit, 322*l*. 15s. 7d.; Calls received, 563*l*. = 885*l*. 15d. 7d.—Mine cost, merchants' bills, &c., August, 192*l*. 3s. 3d.; Sept., 115*l*. 9s. 3d.; Oct., 117*l*. 16s. 7d.; June merchants' bills, 82*l*. 7s. 4d.; sundries, 18*l*. 7s. 4d.: leaving credit balance, 359*l*. 1s. 10d. The balance of assets over liabilities was 2*l*. 18s. 6d. A call of 3*l*. per share was made. The report of Capt. W. Richards was considered of a satisfactory character.

At the Great North Downs Mine meeting, on Wednesday (Mr. Pinnington in the chair), a call of 20s. per share was made, 10s. to be paid down and 10s. upon April 1. Details in another column.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As I saw there would be nothing particular for the present week, I did not address you for the Journal. I think I may refer back to the predictions for this year with some degree of satisfaction. In my "Climate of England" I predicted for the present year cold, severe frosts, and snow, to the end of February; fine April, and fine growing summer; fine autumn, good crops; and mild to December.

The character of the year throughout has been in strict accordance with this prediction. With reference to the weather for the coming week, between the 7th and 9th, there will be some gales, and, to all appearance, attended with thunder, lightning, and rain; also, there may be some strong winds between the 10th and 12th; the end of the week foggy weather with a gale about the 18th. But on this I will again address you fo next week's Journal.

G. SHEPHERD, C.E.

26, *Throgmorton-street, Dec.* 5. "Author of the Climate of England."

FORTUNATE MINERS.—Messrs. Cobden, Bright, and some friends, about three years ago, purchased the Dyliffe Mines for the sum of 24,000*l*., and they were bound also to lay out 10,000*l*. in explorations. Their late returns have been upwards of 200 tons of lead ore per month, which it is believed yields a profit of about 1000*l*. per month, and they expect now to return upwards of 250 tons per month.

MINING IN CARDIGANSHIRE.—The Hafod Lead Mining Company, which has been a short time before the public, may now be considered as fairly established, it being reported that sufficient capital is already subscribed to justify the company in commencing operations, and that there is little doubt of its proving a most profitable investment for shareholders. The sett is looked upon with much interest as being "in the very centre of the best-paying mines; and the chief agent of the Cwmystwith Mines has reported that their best-paying lodes run through the Hafod property, which is the best unworked ground in the county." The property to be worked by the company exceeds 2000 acres in extent, and the term and favourable conditions of the lease—40 years at 1-20th royalty—have hitherto been unknown in Wales. The prospects of the undertaking are described as very encouraging, both by Mr. Jehu Hitchins and Capt. Matthew Francis, and large profits are estimated to result from careful and vigorous working by every one who has visited the mines. The capital consists of 10,000 shares of 5*l*. each, but in the first instance it is intended to issue 6000 of the shares only.

THE SANTA BARBARA MINING COMPANY.—A telegram was received in London yesterday afternoon from Liverpool, to the effect that the directors of this company have received advices by the Brazilan Mail of the purchase of the Pari Mine and property having been concluded. Arrangements will be forthwith made to dispatch Capt. Bryant and a competent staff of miners to the Brazils. Several reports have been received, per the mail just arrived, which fully confirm the favourable opinions expressed as to the mineral value of the estate, which comprises an area of four square miles. The letters of allotment have been issued, and the development of the property will be at once vigorously prosecuted.

*** With this day's Journal we give a SUPPLEMENTAL SHEET, which contains—Reviews of Dr. Percy's New Metallurgical Text-Book, and Mr. Smiles's "Lives of the Engineers"—also papers on Remarkable Mineral Deposit; Steam on Steep Roads—Important Improvements; Prosper United Mines; The Mining District in which East Seton is situated, with map; Improved Prospects of English Investments on the Continent; Furnaces; the Government Guarantee on Indian Railways; Economic Railway; Water Locomotion; Locomotion on Common Roads; Mining in Cumberland; Artificial Stone, and Preservation of Timber, &c.

*** With the MINING JOURNAL of Nov. 23 we gave a SUPPLEMENT, which contains—The School of Mines, Andersonian University, Glasgow; Miners' Association of Cornwall and Devon; Cornish Mining; Pyrites; Observations on the Coal Mines of Belgium—No. III.; Coals Classified; Great Tywarnhaile Mining Company; On the Internal Heat of the Earth; The Telegraph to India; A New American Gas Coal; Victor Emanuel Mine; St. John del Rey Mine; Steam-Engines and Boilers; Lanharry Hematite Iron Ore Company; Water as a Fuel; Letts's Diaries; &c.

COPPER ORES.

Sold at LIVERPOOL, on Nov. 28, by Mr. J. P. Campbell, ex *Marion*, from Quebec.

	Tons.	Price per ton.	Purchasers.
Lot 1	84	£14 12 6	Williams, Foster, & Co.
2	84	14 11 0	ditto
3	84	14 9 0	ditto
4	22	21 0 0	Sims, Willyams, & Co.

LEAD ORES.

Tenders for 460 tons of lead ore, sold by the MINERA MINES, on Nov. 30.

Mines.	Tons.	Price per ton.	Purchasers.
Lot 1	100	£12 15 0	Newton, Keates, & Co.
2	100	12 18 6	Walker, Parker, & Co.
3	100	12 18 6	ditto
4	100	12 16 0	Newton, Keates, & Co.
5	25	12 13 0	ditto
6	25	12 13 0	Panther Co.
7	10	11 5 0	Walker, Parker, & Co.
Sold on the 2d December.			
Newtownards	75	12 12 0	A. Courage & Co.
East Logylas	70	12 4 0	Sims, Willyams, & Co.
Glogfach	60	16 1 0	ditto
Cwmystwith	60	13 0 0	ditto
ditto	60	12 14 0	ditto
Goginan	41	16 13 0	ditto
ditto	9	15 5 0	Walker, Parker, & Co.
Sold on the 5th December.			
Tassan	25	12 4 6	A. Eyton.

BLACK TIN.

Sold on the 30th November.

Mines.	Tons	c.	q.	lbs.	Price per ton.	Amount.	Purchasers.
St. Day United	22	10	0	15	£62 0 0	£1395 8 3	—Trethellan.
ditto	16	1	3	4	62 0 0	997 10 8	—Mellanear.
Gt. Wheal Busy	7	4	2	22	63 0 0	455 15 10	—Carvedras.
ditto	0	8	3	1	45 0 0	19 14 1	— ditto
Sold on the 3d December.							
ditto	7	7	3	8	63 0 0	465 12 9	— ditto
ditto	0	16	2	1	60 10 0	49 18 9	— ditto
ditto	1	1	2	8	45 0 0	48 10 8	— ditto

COPPER ORES.

Sampled Nov. 20, and sold at Tabb's Hotel, Redruth, Dec. 5.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Clifford Amalgamated	113	£6 9 6	Wheal Basset	20	£16 2 0
ditto	112	6 8 0	Wheal Seton [Pendarves	69	1 6 6
ditto	110	6 11 0	ditto	67	5 11 6
ditto	105	6 9 0	ditto	60	6 7 0
ditto	95	4 14 6	ditto	42	6 17 0
ditto	84	4 6 6	ditto	38	5 11 0
ditto	83	15 18 6	ditto	30	2 14 6
ditto	74	5 17 0	ditto	29	13 14 6
ditto	72	3 14 0	Condurrow	94	2 19 0
ditto	71	7 19 0	ditto	65	2 10 6
ditto	47	7 7 0	ditto	50	6 2 0
ditto	19	4 12 6	ditto	45	7 16 6
Engine ore	62	8 1 0	ditto	28	0 7 6
West Seton	91	5 9 0	ditto	21	2 16 6
ditto	90	7 7 6	South Frances	91	5 7 6
ditto	88	10 0 0	ditto	47	10 0 0
ditto	80	8 16 6	ditto	45	5 7 6
ditto	69	8 11 6	ditto	30	5 6 6
ditto	68	6 16 6	ditto	7	3 14 0
ditto	61	2 19 6	South Tolgus	80	11 1 0
ditto	53	2 18 0	ditto	53	4 10 0
ditto	41	6 12 0	ditto	50	4 9 6
Tincroft	80	1 1 6	East Basset	76	5 3 6
ditto	60	2 19 6	ditto	58	6 1 6
ditto	58	2 16 0	ditto	27	11 10 0
ditto	57	5 7 0	New Treleigh	61	3 10 0
ditto	56	5 7 6	ditto	46	3 10 0
ditto	46	3 4 6	ditto	28	8 8 6
ditto	29	11 10 6	Camborne Vean	57	7 3 6
ditto	20	2 3 6	ditto	54	2 4 6
East Pool	75	4 13 0	ditto	23	1 0 0
ditto	62	3 10 0	Stray Park	66	3 6 6
ditto	57	3 14 6	ditto	35	0 10 0
ditto	55	4 15 0	ditto	22	11 0 6
ditto	40	0 12 6	Dolcoath	41	5 0 6
ditto	37	5 0 0	ditto	31	2 7 6
ditto	28	4 3 6	West Tolgus	63	4 16 0
ditto	20	2 6 0	South Crofty	25	1 1 6
Wheal Basset	99	6 16 0	ditto	20	6 17 0
ditto	82	6 19 6	ditto	13	2 19 6
ditto	80	9 15 0	South Basset	38	3 5 0
ditto	57	5 10 0	Carn Camborne	17	5 9 6
ditto	26	2 3 0	ditto	5	1 13 6

TOTAL PRODUCE.

Clifford Amal.	1047	£7176 7 0	East Basset	161	£1056 3 0
West Seton	641	4407 5 0	New Treleigh	135	610 8 0
Tincroft	406	1558 18 6	Camborne Vean	134	552 2 6
East Pool	374	1412 4 6	Stray Park	123	479 10 0
Wheal Basset	364	2716 11 0	Dolcoath	72	279 13 0
Wheal Seton, &c.	335	1824 6 6	West Tolgus	63	302 8 0
Condurrow	303	1168 7 6	South Crofty	58	202 11 0
South Frances	220	1386 13 0	South Basset	38	123 10 0
South Tolgus	183	1346 5 0	Carn Camborne	22	101 9 0

Average Standard ..... £136 2 0 | Average Produce 6¼
Average Price per ton ..... £ 5 14 0
Quantity of Ore ..... 4679 tons | Quantity of Fine Copper, 290 tons 14 cwts.
Amount of Money £26,704 12 6

LAST SALE.—Average Standard ..... £138 15 0.—Average Produce 5⅞
Standard of corresponding sale last month, £132 19 0.—Produce, 7.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Vivian and Sons	556 5-6	£2621 5 3
Freeman and Co.	308	3043 0 0
Grenfell and Sons	593½	4231 12 9
Crown Copper Company	12⅓	61 13 4
Sims, Willyams, and Co.	346 5-6	2323 7 0
Williams, Foster, and Co.	763½	5048 13 7
Mason and Elkington	720 5-6	3930 12 6
F. Bankart	287	893 0 6
Copper Miners' Company	504½	2756 0 6
Charles Lambert	251	712 5 0
Sweetland and Co.	325	1083 2 6
Total	4679	£26,704 12 6

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and Parcels.—West Basset 552—Carn Brea 521—Great Wheal Alfred 360—Par Consols 253—Pendeen Consols 215—Great South Tolgus 213—Wheal Charlotte 151—Rosewarne United 149—Wheal Butler 132—Copper Hill 123—Wheal Anna 103—Treloweth 87—Prideaux Wood 60—Wheal Unity Consols 32—Mines Royal 28—Pend-an-drea 23—Rosewarne Consols 14—Trevoole 12—Boscaswell Downs 12—South Dolcoath 12—Camborne Consols 10—Wheal Grylls 7—Goonzion 4.—Total, 3073 tons.

Copper ores for sale on Thursday week, at the Royal Hotel, Truro.—Mines and parcels.—Devon Great Consols 2147—Phœnix Mines 564—Marke Valley 400—Creiake 370—Great Wheal Martha 350—East Caradon 345—Wheal Edward 274—Bedford United 204—North Robert 204—Wheal Emma 160—Calstock Consols 159—Wheal Yarner 154—Sortridge Consols 130—Wheal Friendship 111—Wheal Arthur 110—Okel Tor 110—Brookwood 62—Devon and Cornwall 50—South Lady Bertha 32—Hawkmoor 30—Furzedon 29—Trehill 25—Nangiles 10—Furze Park 9.—Total, 6039 tons.

FIRST SALE IN DECEMBER.

Years.	Tons.	Prod.	Amount.	Standard.	Ore copper.	Cake cop.
1851	3852	7⅛	£18,793 11 6	£107 18 0	£89 1 0	£88 10
1852	4432	6	24,305 13 6	136 5 0	90 15 0	102 10
1853	4394	6⅞	31,424 7 6	153 19 0	111 4 0	126 0
1854	3712	6⅞	22,596 17 6	145 10 0	100 5 0	126 0
1855	5055	6⅞	32,004 2 6	141 13 0	98 18 0	126 0
1856	3571	9⅝	23,962 10 0	142 17 0	101 7 0	117 0
1857	3000	6¾	16,228 11 6	127 14 0	84 14 0	121 10
1858	3708	6⅞	22,848 0 6	134 14 0	93 3 0	102 10
1859	4841	6⅞	30,707 11 6	138 8 0	96 10 0	112 0
1860	4199	6⅞	24,104 7 0	133 3 0	90 0 0	102 10

The copper in the ore expresses the nett price per ton of copper paid to the miner.

THE CARDIGANSHIRE CONSOLIDATED MINING COMPANY (LIMITED).

Increase of nominal capital to £50,000. In 10,000 shares of £5 each.
The shareholders will not be liable beyond the amount of their respective subscriptions.
5s. per share to be paid with application, and 15s. per share on allotment.

DIRECTORS.

CHARLES COPLAND, Esq. (Messrs. Copland and Co.), Bury-street, St. Mary Axe.
JOHN KILNER, Esq., Bury St. Edmunds.
PARKE PITTAR, Esq. (Messrs. P. Pittar and Co.), 26, Gresham-street.
PERCY MARSH SHARP, Esq. (Messrs. Hancock, Sharp, and Hales), 20, Tokenhouse-yard.
(With power to add one more.)

SOLICITORS—Messrs. Hancock, Sharp, and Hales, 20, Tokenhouse-yard.
CONSULTING MINING ENGINEERS—Messrs. Phillips and Darlington, 26, Gresham-street.
BANKERS—London and Westminster Bank, Lothbury.
AUDITOR—Charles Eley, jun., Esq., 27, Great George-street, Westminster.
LONDON MANAGER, AND OFFICES—J. H. Murchison, Esq., No. 117, Bishopsgate-street Within.

BROKERS.

London ..... Messrs. Alexander and Lindow, 21, Tokenhouse-yard.
Manchester.... James Gorton, Esq., Newmarket Chambers.
Aberdeen..... H. C. Oswald, Esq., Marischall-street.
Exeter..... Mr. John Harris.

ABRIDGED PROSPECTUS.

This company holds the celebrated lead and copper mines of Sir Carbery Price, known as Esgair-hir and Esgair-fraith, situate in the rich mineral district of Cardiganshire.

Messrs. Phillips and Darlington state, "It is quite certain that the old men made enormous returns from the ground near the surface, and that the mine has from time to time commanded very considerable attention. It would be requisite that adequate capital should be provided, and in case of this being found we are of opinion that the Cardigan Consols Mine offers more than average security for the money so employed. We may further observe, that the lode in this mine appears to be very analogous to that of Wildberg, in Germany, which, under our management, returned about £55,000 worth of ore in a period of 2¼ years, and which undertaking has been worked during several centuries, and at various periods afforded large profits to the proprietors.

Among the reports will be found a joint one from the managing agents of the Dyliffe and the Dyfngwm Mines, who have minutely examined the Cardigan Consols property, and having traced the lode for the distance between these mines, they confirm the previous belief that Cardigan Consols is on the Esgair-galed lode of Dyliffe. The Dyliffe Mines were purchased about three years ago by Mr. Bright, M.P., and his friends, for the sum of £24,000, and they were bound also to lay out £10,000 in explorations, &c. The returns are now upwards of 200 tons of lead ore per month, which it is believed yield a profit of about £1000 per month. At Dyfngwm, adjoining Dyliffe, they are making a profit of about £200 per month, and likely to improve.

The managers of Dyliffe and Dyfngwm also state that if their recommendations are carried out at Cardigan Consols, "it is our firm opinion that the mine would again open out productive, and large bodies of ore be discovered. It would then prove itself to be what it was always supposed to be by those who have known it longest and best—viz., one of the first in the kingdom. We speak from experience of 30 and 20 years in a similar stratum to yours. And what we recommend you to do we have already done something similar ourselves. And we are now carrying on works of the same magnitude on the very same lode." Mr. Davies, of Dyfngwm, also states in a letter, "we consider that Esgair-hir has a national character, and if this mine turns out a complete failure, nothing is safe."

In a letter also, written by Mr. John Taylor, jun. (of Messrs. John Taylor and Sons), dated April 22, 1857, he states, "As to the mine itself (Cardigan Consols, then called Welsh Potosi), I have a high opinion. This opinion is not formed from personal inpection, for I never was on the spot; but I have watched the returns of ore from it for very many years, and I have received many reports on the lode from competent judges. Moreover, I know the character of this lode well at the Dyliffe, where I have the management."

Applications for shares, in the form annexed to the prospectus, accompanied by a deposit of 5s. per share, may be addressed to the directors or to the brokers. On allotment, 15s. per share additional will have to be paid, but if no shares are allotted the deposit will be returned.

Detailed prospectuses, with the reports, and forms of application for shares, may be obtained at the office, 117, Bishopsgate-street Within, E.C., or from any of the brokers. The prospectus will also be found at length in the *Times*, *Daily News*, *Morning Post*, *Economist*, *Mining Journal*, and *Limited Liability Journal*, of 30th November.

THE WISCONSIN MINING AND SMELTING COMPANY (LIMITED).

Incorporated under the provisions of the Joint-Stock Companies Act, 1856, by which the liability of the shareholders is limited to the unpaid amount of their shares.
In 9000 shares of £1 each; 10s. per share on application, and 10s. per share on allotment.

DIRECTORS.

Lieut.-Col. J. R. ABBOTT, 9, Portsdown-road, Maida Hill, Paddington, W.
The Rev. ALFRED WALNE, LL.D., Bunbury, Cheshire.
E. NICHOLAS, Esq., 43, Barbican, London, E.C.
(With power to add to their number.)

AUDITORS—To be appointed at the first general meeting.
BANKERS—Bank of London.
SOLICITORS—Messrs. Hobbs and Weedon.
SECRETARY—William Waine, Esq.
MANAGER AT THE MINE—Mr. David Strickland, Cornwall.
OFFICES,—63, CORNHILL, LONDON, E.C.

This company is formed to develope on the English principle certain parts of the rich lead mines in North America.

It is a well-known fact, that one of the richest deposits of lead ores exists in the region of Wisconsin; and although three quarters of a million pigs of lead (71 lbs. each), are raised annually by poor labouring miners of the district, without any capital whatever, it has yet to be developed by properly-directed mining enterprise.

By the formation of railways (lately completed), and other means of communication, the time has arrived for the employment of the ordinary appliances and engineering skill, to work the mines by the same method usually adopted in Cornwall and other mining districts in England.

The purchase of 160 acres is effected, and a lease granted in perpetuity—including water machinery, that will only require repairs to keep the mine unwatered for many years to come, which is also purchased.

The mine is really discovered, most of the speculative work effected, and valuable lodes laid open for a considerable distance that will simply require the requisite plant and appliances to thoroughly develope their riches.

In comparing the future prospects with the past, the following are the particulars:—The poor men before alluded to paid 6s. 8d. in £1 royalty. The future is only 1s. 4d., saving in this alone, 5s. 4d. in £1. And by smelting the ores on the premises another saving of 25 per cent. will be effected, leaving a clear profit of 10s. 4d. in £1, compared with the past working.

The lead ores are of the very best quality, and worth, by Johnson's assay, 80 per cent. for lead. Samples of ores taken from the mine may be seen at the office of the company. Ready-money sales for the lead can be obtained in America, at a higher price than in England. The present war raging can have no other effect on the mine than to raise the price of lead, being nearly 2000 miles from it.

Very little more will be required than the necessary appliances. Houses and machinery to bring the mine into a complete dividend-paying state; and 3000 shares of 20s. each share, will be issued for this purpose.

In the Deed of Incorporation, powers will be taken for securing all other valuable mineral lands, as well as for all other necessary purposes, and it is further proposed that operations shall commence when such amount of capital is subscribed as in the judgment of the directors will enable them to do so.

A careful survey of the mine has been made by Capt. Stickland, of Cornwall (since receiving the report of Capts. Chynoweth and Heathcock, which is hereto annexed), who appear to be thoroughly satisfied that a profit can be clearly shown within four months from commencing operations, by employing 30 men (provided the ores are smelted on the premises), of £250 per month, which will progressively increase so that from 50 to 100 per cent. per annum, can be realised the second year.

Five per cent. will be deducted for commission and other preliminaries.
Should no allotment take place, all deposits will be returned in full.
NO APPLICATION FOR SHARES after MONDAY, 16th inst.

REPORTS.

By your request, we beg to send you our report of the Pedlar's Creek Mine. This mine is situated about seven miles from Mineral Point, at which place there is a railway station, with a proper communication to all the principal cities and towns in America. This sett comprises a large tract of land, and embraces twelve well-known lodes, which traverse the entire length of the sett from east to west, and from north to south. Some of those lodes have been worked on for some distance, and will form junctions where they intersect each other: here is the place where we expect to find the heaviest deposit of mineral. Although the mine has only been sunk 60 ft. deep, there have been many thousand pounds of mineral returned, and still leaving it good going into water. For want of the needful there it must stay. In bringing a level from the valley to crosscut the north and south lodes, the men discovered the back of a blue flookan opening, they sunk on it about 10 ft., and opened out a place about 50 ft. wide, the whole breadth being interspersed with pure cube lead. The end, sides, and all of this excavation are of this kind of stuff. Four men can keep a horse-whim running all the time, it being only 60 ft. from surface. This mine can be worked with little capital, as there is plenty of water-power to be applied for sinking and operating on to any extent that may be required. In sinking the pump-shaft on the junction, you will be in a position to bring water within 20 ft. of the spot where the shaft should be sunk, and then run the levels on the course of the lodes east and west, north and south, and in the meantime work on the blue flookan opening, which is considered 100 ft. wide; by so doing—

Thirty men can raise 2700 lbs. of lead ores a day, worth at least	$81	
Hauling and bringing to surface	$ 5	
Thirty men's wages.....	30	
Dressing.....	10=	45
Profit per day	$ 36	
Profit one month	£172 or $864	

JAS. CHYNOWETH, JOHN HEATHCOCK.

I have lately inspected the Pedlar's Creek Mine, in the county of Iowa, State of Wisconsin, adjoining Lake Superior, North America. There is a railway leading to all parts of America, not more than seven miles from the mine. The strata are chiefly composed of limestone, reasonable to excavate. The lodes are well defined, and make solid ores within a few feet of the surface. The dead ground is left for a roof, and is stoped to water, leaving it rich going into water; consequently there are no levels, but one continued open bottom the whole extent of the workings. I also examined another mine close by, where poor men stoped the lodes in the same manner for 1800 fms. long; thus showing the regularity and richness of the lode. The lead ores are of the best quality, and worth 80 per cent. for lead. Smelting the ores on the premises will save the company 25 per cent. The value of the raw ores is about £12 per ton of 2,000 lbs. I have examined some smelting works in the district which are simple in construction, and very economical in use. £260 will build works sufficient to smelt 6 tons per day. The sett contains twelve rich lead lodes—but only two have been worked on, as before stated. The whole of the lodes can be opened up by driving two levels, 40 fms. each in length, which will take twelve months from the commencement of operations. You may safely at the end of the year divide 15 per cent. on the capital. The works have been carried on entirely by poor labouring miners, they paying one-third royalty, doing all the extra work, and paying every expense incident thereto. Independent of the twelve lodes before mentioned, there is a flookan 10 ft. thick, containing rich solid cube lead throughout, and opened on about 40 ft. wide; at this place 30 men can be set to work immediately after the machinery is put in good order; and by smelting the ores on the premises, these men can raise 32 tons of lead per month, which will leave a clear profit of £250. I consider that it will take twelve months to open up the whole of the lodes, and when this is done I fully believe the mine will be in a position to pay £1000 per month profit. I, beg further to state that I have been a superintending agent in Cornwall for many years and I confidently assure you that I never inspected mines before where ores made so shallow, where there is such a quantity of ores in sight, and where there is such certainty of immediate and lasting profit. DAVID STICKLAND.

Notices to Correspondents.

THE SYSTEM OF COAL MINING AS PURSUED IN THE NEWCASTLE DISTRICT.—I beg to inform "Inquirer" that I will give him detailed answers to his Queries, contained in his letter in the *Mining Journal* of Nov. 30, in the Journal of next week.—M. E.

LIQUEFACTION OF GOLD QUARTZ.—In the Journal of Feb. 2, 1861, there is an article concerning Dr. Hardinge's (of New Orleans) invention, to dissolve siliceous earth (silica) by a minimum of liquid alkali, and to produce, by an addition of metallic oxide, plastic marble. Should there already exist in England a manufactory of that kind of plastic marble, the practical possibility of carrying out the matter on a larger scale consequently being proved, I should be inclined to enter upon negociations, either with the inventor or with the bearer of the patent, to exercise the invention in Germany.—CARL CLAUSS: *Nurnberg, Bavaria.*

SILICATES AND SULPHURETS OF GOLD.—Although it always gives me great pleasure to read such original letters as those of your golden correspondent, G. F. Goble, I was doubly gratified on perusing those respecting the silicates and sulphurets of gold, because for years I have felt convinced the ancients must have collected the precious metals in a way moderns cannot procure them. Besides, I have frequently sent to Swansea samples of mundic which the assayer stated contained gold. I, therefore, hope Mr. Goble will give the world such a valuable re-discovery, even if he patents it. F. PARRY: *Carnarvon.*

GOLD IN WALES.—Since a valuable contributor to the Journal imagines one of my epistles was levelled at him, I merely ask did it *hit* the object as hard as "Caveto," and what is meant by refusing to join *such* a company when at Dolgelly? I also should like to know what Mr. Williams (Liverpool) means by *this* district, or that it is well *we* have Mr. Ennor *to call* round at times? And why should I have felt annoyed by any practical man giving out *truthful* scientific reports, particularly when I know no more about Mr. Ennor than I do any of the proprietors of the Clogau or its neighbourhood? I, therefore, must possess a very sensitive skin to feel chafed by any foggy wind blowing behind my back while exploring a country I receive not the least pecuniary interest in advocating; consequently, so long as I can remain a free southerner on British soil no N. E. breeze will prevent me from writing truth, whether it hit or miss. Then, again, doth not official reports quote Mr. Williams's district to yield about a pound of pure gold per diem? Then, pray, how many days, months, or years might gold be gold in Wales?—G. F. GOBLE: *Bala.*

FOSSILS.—If this should meet the eye of any Cornish collector, the writer would be glad to exchange fossils from the Silurian limestone and the coal measures, consisting of organic remains and plants, for Cornish minerals and crystals, or fossils from the Devonian series. Apply H. J., care of *Mining Journal* office.

MINING IN SCOTLAND.—In the Notices to Correspondents in last week's Journal I see that reference is made to my twelve papers on that subject. As to a mine on the Erins estate, Lochfyne, I beg to tell "Scotia" that I know it well. There are on that estate mines of copper, lead, blende, and iron. I believe the cause of their not being worked long since has been the very high terms demanded by the proprietor, and I have told him so many times. I hope the present lessees have them under greatly modified conditions, or they cannot be wrought at a profit. I have very little doubt as to the future of Scotch copper and lead mining, as soon as prejudice shall have been conquered. The mines at Lochwinnoch and West Kaime afford pretty good earnest of what will follow.—THE AUTHOR OF THE TWELVE PAPERS ON "MINING IN SCOTLAND:" *Lochhead House, Lochwinnoch, Dec. 3.*

THE SILVER VEIN MINING COMPANY.—The letter from Mr. Squire, descriptive of his process, and the results of his recent experiments, will appear in next week's Journal.

CLIJAH AND WENTWORTH MINES.—A report being in circulation to the effect that this property is about to be wound-up, I enclose a letter received from the secretary, Mr. R. H. Pike, giving a distinct denial to such report; and in reverse, several important points in progress are about being opened, which will have the effect of causing a different value being set upon the property to what now exists.—A SHAREHOLDER.

DEVON GREAT CONSOLS.—In reply to our correspondent, "An Inquirer," as to the quantity of ore sold from these mines, and the amount of money realised, we may state that up to December last there had been sold 325,583 tons of copper ore, which realised the sum of 1,940,000*l.* During the 11 months of the present year there have been sampled 18,795 tons of copper ore.

ST. JUST UNITED MINES.—I am truly delighted to find that the lord, after holding out for so many years, has at length been persuaded to grant a lease of the St. Just United Tin and Copper Mines, and that they are about to be set to work in a thoroughly business-like manner, under the guidance of my worthy old friend, that splendid mining captain, John Carthew. These much coveted mines, as is well known, actually teem with riches, and most fortunate indeed are they who have succeeded in obtaining the sett, there being no speculation whatever in this instance. These mines will pay most handsomely, and that immediately—nay, they are at this moment returning a good profit, though they can scarcely be said to be legitimately at work. It is the opinion of one of the first practical mining authorities of the day that the St. Just United Mines will, within two years, pay the shareholders cent. per cent., and this I believe to be no exaggeration, but sober truth.—A TINNER.

THE ANNUAL REVIEW OF MINING.

BY J. Y. WATSON, ESQ., F.G.S.

This valuable Epitome of Mining Progress is in course of preparation for 1861, being the Eighteenth Year. Pursers, agents, and others concerned, are requested to forward all their information, with as little delay as possible, either to our office, or to Mr. WATSON (Watson and Cuell, St. Michael's-alley), that complaints may not be made of defects or omissions.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, DECEMBER 7, 1861.

THE WELSH COAL TRADE.

[FROM A CORRESPONDENT.]

At one time the causes of Welsh *v.* North Country Coal and North Country *v.* Welsh Coal, were regarded as all important amongst the members of the coal trade, but as "when two fires meet they do consume the thing that feeds their fury," the subject has gradually decreased in interest, until purchasers had begun to flatter themselves that they would not be further troubled with fallacious arguments, in which facts stated as general were applied as particular; erroneous conclusions being thus drawn, which could only mislead instead of guiding them in their transactions. As the Welsh coalowners could hope for no additional advantage from continuing this discussion, it has been permitted to give place to a rather fierce contest between "Carbon," of Aberdare, and Mr. John Nixon, of Cardiff, the representatives of two well-known qualities of Welsh steam coal—Nixon's Navigation and Thomas's Merthyr. Whether we regard the letters of the disputants as examples of bold assertions inflexibly maintained, or of determined efforts to prove that which it is desired to prove regardless of all obstacles, logical or other, we must admit that both gentlemen are entitled to equal credit. Mr. Nixon states that "the superior value of the upper four-feet seam in the Aberdare district is so well known that it seems futile to comment upon it;" to which "Carbon" replies, that such eminent authorities as Miller, Hoffman, and Frankland show in their official report that the upper four-feet seam is of lower evaporative power than either of the other seams experimented upon (the 9 feet and the 2 feet 9 inches); this is, doubtless, one point for "Carbon." But, says Mr. Nixon, the other colliery proprietors (which includes "Carbon") mix the produce of nine seams, and this "Carbon" does not directly deny, but says that, with one or two exceptions (which exceptions may include "Carbon's" colliery), there are only three seams worked. Until "Carbon" positively states that in the coal sold as "Thomas's Merthyr" there is none from other than the three seams, this is a point in Mr. Nixon's favour.

To review the dispute impartially, it certainly appears that much may be said on both sides; it seems that the evaporative power of Thomas's Merthyr has been stated high, assuming Mr. Nixon's statement that the coal from the nine seams are mixed; but before Nixon's Navigation coal is taken as the best in the market, Mr. Nixon has to prove that the coal from the four-feet seam is not liable to break down to small; and as he states that his prices are higher than those of other colliery owners, he must show that 1*l.* worth of his coal will do more work than 1*l.* of other coal, yet will not occupy more room for stowage. This is where "Carbon" seems to have the advantage; he says that he sells coal of high evaporative power at a low price, and infers that it is not liable to break down to small. If he can prove this to be the case, he need not fear but that he will secure an ample market for it. The statement that Nixon's Navigation coal is 20 per cent. better than the ordinary Welsh coal is simply absurd, and there are many North Country coals which could easily compete with it; and the official letter of the Storekeeper-General, that it is found inexpedient to confine the supply of coal for Government use to the four-feet seam, does not seem to bear out Mr. Nixon's assertions. The whole of the coals in the Merthyr and Aberdare valleys are known by practical men to be so nearly equal in quality that price alone should decide which particular owner is patronised.

THE PROGRESS OF RAILWAYS IN SOUTH WALES.

Last year there were several new railways proposed for the western counties of Wales, but the only two for which Acts were obtained were the Llanelly Railway and Dock Extension from Llandilo to Carmarthen, and from Pontardulais to Swansea, and the Devil's Bridge and Aberystwith branch of the Direct Manchester and Milford Haven Railway. The Llandovery and Brecon line was abandoned, with the promise of introducing it afresh this year, but no mention has been made of it, although it forms an important link in the narrow gauge communication with London and the midland counties. The Milford, Fishguard, and Cardigan line was also a complete failure, notwithstanding the ostentatious support it received from two or three professional men. We proved, beyond reasonable doubt, when the proposal was first made, that it was impracticable, and the result is precisely what we expected. Besides, the course we advised has been adopted by the Carmarthen and Cardigan Company, who have given notice of their intention to apply to Parliament in the next session for powers to extend their line from Llandissul to Newcastle Emlyn. To avoid any confusion, we would state that the Carmarthen and Cardigan line commences at the Carmarthen station of the South Wales line, and goes nearly direct north to Llandissul, a distance of 19¼ miles; the extension now proposed is to Newcastle Emlyn, about eight miles to the north-west. The scheme has been very warmly espoused in the district more particularly interested in it; and at a recent meeting in Newcastle Emlyn, which represented the territorial wealth and influence of the locality, several gentlemen voluntarily undertook to canvass for shares, in the hope of obtaining 20,000*l.*, or one-third of the cost of constructing the line.

As we have more than once explained, about 14 miles of the Carmarthen and Cardigan Railway, from Pencader to Carmarthen, forms part of the western thoroughfare from Milford to Manchester, and hence its importance. The line from Pencader to Llanidloes is in progress, although very little has hitherto been done; and perhaps to its tardiness we are in some measure indebted for the backwardness of the works on the Carmarthen and Cardigan line; but a dispute with Mr. Jay caused a loss of several months, and nothing was done during the whole of the summer. That dispute has, however, been arranged, and Mr. Jay is no longer the contractor of the line. His bonds and shares have been purchased by Mr. Holden, of Birmingham, who has undertaken to complete the line to Llandissul by October next, and to Newcastle Emlyn by the following summer. This has inspired new life and energy into the company, and if the directors observe ordinary vigilance in their proceedings the line will be in operation to Newcastle Emlyn in about two years, and the chances of a dividend will then depend upon circumstances under their own control, as there will unquestionably be a large traffic over the line. The local traffic in itself will be considerable, but to that we must add an enormous through carrying trade.

Another part of this scheme contemplates two mineral branches up the Gwendraeth. The connection which now exists between the coal and lime districts and the Carmarthen and Cardigan line is through the South Wales Railway, into which numerous railways and tramroads run from the coal field and the limestone rocks, but the nearest of which is the Llanelly line, which is inconvenient, and, besides, leaves an extensive portion of the coal field unprovided; and for some time past the propriety of opening up the Gwendraeth by a mineral line has been discussed, and the old Carmarthenshire tramroad being still in tolerable preservation, steps were taking for its restoration, which could be easily accomplished. It was also suggested that the canal which runs through the valley should be converted into a railway, and of the two schemes this seemed to obtain most favour. But neither of them was perfected, and now the Carmarthen and Cardigan Company are prepared to make two branches from the Kidwelly station of the South Wales Railway to Mynydd-y-garreg, and to Pontyberem, for the purpose of supplying the mineral traffic on their line. Limestone is quarried at Mynydd-y-garreg, where the outcrop of the carboniferous series is boldly developed. There are several collieries in the route of the line to Pontyberem, where Mr. Watney does a large coal trade, and has also some blast-furnaces for iron. Those who promote the resuscitation of the old Carmarthen tramroad and the canal scheme object to these branches,

as incompetent to meet the mineral traffic of the valley; but it should not be forgetten that their inactivity and want of energy afforded an opportunity to the Carmarthen and Cardigan Company to introduce their branches, which we are informed will be made forthwith, probably before an Act is obtained. All the land required for the lime branch, except three patches, making altogether under 5 acres, has been agreed for; and, if the proprietors throw no obstacles in the way, Mr. Holden will proceed with the work immediately; and, we believe, he will also go on with the coal branch. We cannot hope for any modification of the plan, but had it been possible we should have preferred a line susceptible of extension to Mynydd-mawr. However, if those branches are made, it should not deter the colliery proprietors from working out the other methods of communication. But this is a subject of so little general interest than we cannot discuss it fully, our object being to indicate the extension of the railway system in South Wales.

UNIVERSAL MINING LAWS.

We have ever contended that nothing conduces more to secure strict observance of a law than the making of its provisions known to everyone affected by it; so there is nothing more calculated to ensure the enactment of wise and useful laws than the thorough diffusion, both amongst legislators and that portion of the community interested, of a knowledge of the enactments that have been tried, or are being tried, in other countries, and of the results which have attended their operation. Upon a former occasion we referred to the publication in Germany of a periodical review of Mining Law—die Zeitschrift für Bergrecht; and as the issue has been continued to the present time, an opportunity is afforded for judging of the merits of the work with some degree of accuracy. The character and design of the review in question may be stated in very few words; it is a careful and systematic summary of the mining laws of all nations, and its object is to afford to all connected with the working of mines brief and intelligible expositions of the laws obtaining in every district where mining is carried on, and to enable miners, wherever they may be, to work with the greatest advantage, by placing within their reach a ready means of learning how to secure all the benefits which the laws of the land have provided for them.

As we naturally test the accuracy of a legal work by referring to the manner in which it treats of laws with which we are intimately acquainted, we first turn, in perusing the Zeitschrift für Bergrecht to the chapters relating to English law, and find that much space has been devoted to the consideration of the Coal Mine Inspection Act, which came into operation in January of the present year. The subject is well treated, and to render the remarks perfectly intelligible to all, the entire Act has been translated and printed opposite the English text; the accuracy of the translation is beyond praise, and will, doubtless be duly appreciated. The Zeitschrift is issued in quarterly parts of about 150 pages each, the first for the present year having recently made its appearance; in the editorial portion it contains the Tuscan law of 1788, with remarks upon it, and an interesting sketch of the most recent mining laws of England, Spain, Portugal, Sweden, Austria, Prussia, Bavaria, Wurtemberg, Baden, Hesse-Darmstadt, and Nassau. In the portion devoted to original papers there are eight very valuable treatises by well-known authorities on mining law; not the least interesting being that by Baron von Hingenan, of Vienna, "On the Reform of the German Mining Laws." The other portions of the work are equally useful, and the reviews of mining literature are comprehensive and impartial. Wherever mining or mining law is taught the "Zeitschrift für Bergrecht" is certainly entitled to a place; and if future numbers be as carefully prepared as those which have already appeared the work will no doubt obtain a high reputation, and become a universal text-book on the subject of which it treats.

THE CARDIGANSHIRE CONSOLIDATED MINING COMPANY.—The prospectus for increasing the nominal capital of this company has been received with much favour, and little doubt is entertained that, with vigorous and judicious operations, the mines will be made largely profitable. According to the agent's report, received this week, several points are looking very promising, but the workings will be much extended, and pushed on with activity, when the new capital is subscribed. It is not at all likely that the whole sum will be called up, but shareholders know the limit to which they are liable, and that, under any circumstances, they can be called upon only for the amount of their respective subscriptions.

MINING IN NEWFOUNDLAND.—Although as yet little of importance has been done to interest the mining public, there is good reason to believe that this state of things will not continue much longer. That valuable minerals do exist in this colony the beautiful specimens of copper, lead, and silver brought under public notice, and procured from various districts, amply demonstrate; yet large sums of money have been spent without resulting in success. Extensive operations are now, however, being carried on upon a remarkable deposit of ore at the Terra Nova Mine, in the north part of the island. The lode is in the bed of a brook, from which the water has been turned into another channel, in order to admit of the ore being worked. This lode is of a very promising character, the ore is nearly uniform in quality from one end of the shaft to the other, and of the quantity raised to grass not one-fourth is rejected as unfit to send to England for sale. Should the mineral increase in quantity, as it appears likely to do, this mine is destined to make a great noise in the mining world; indeed, there seems to be scarcely any limit to the quantity that this mass can supply. This account seems fully to confirm the report of the value of the Terra Nova Mine published upon the authority of another correspondent, in last week's Journal.

THE WISCONSIN MINING AND SMELTING COMPANY, the prospectus of which may be seen in another column, is formed for the purpose of working a lead mine and smelting the ores in the State of Wisconsin, in North America. The mineral wealth of Wisconsin in lead is great, inasmuch as three quarters of a million pigs of lead are annually raised by poor men without any capital whatever. Although on this side of the Atlantic little is known, except an occasional report of shares changing hands in Wall-street at a premium of several thousands per cent., there is, however, but little doubt that the many important lodes now opened on will be extensively worked as soon as capital can be raised. The Wisconsin is no new adventure, but a thoroughly-proved undertaking. We have seen the inspecting agent, who is confident of its success; and that the profits in the first fourteen months from the commencement of operations will yield 30 per cent. dividend, and promises an increasing one the second year. From a careful examination of the prospectus, reports, and calculations, placed before us, we see no reason to doubt the accuracy of these statements. Hitherto poor labouring miners have been the sole workers of the mine, and paying a heavy royalty. If they can do this, and make it pay, by merely scratching the surface, it follows that a well-organised company, with a moderate amount of capital, efficient machinery and engineering skill, as in England, and only paying a small royalty, as well as smelting the ores, cannot fail to make considerable profits; and it may be safely recommended to the notice of the public generally.

STEAM CULTURE.—For some years the firm of Clayton, Shuttleworth, and Co., has enjoyed a high reputation for their portable agricultural steam-engines and machinery, the adoption of which have now become so general that there are few districts where the name at least of the Stamp End Iron-works is not now known. Some years ago the unserviceable character of portable steam-engines formed an obstacle against their general use, the experience of many of those who employed them being of the most unfavourable kind. This circumstance was deeply to be lamented, as presenting an obstacle to progress difficult to be overcome, and placing difficulties in the way of the manufacturer obtaining further orders, which nothing but the most persevering energy, coupled with the highest degree of excellence in production, could surmount. Such was the state of affairs some ten or twelve years ago, when the proprietors of the Stamp End Works set about devoting their energies to the production of a class of portable steam-engines, combining simplicity in the arrangement of details, excellence of workmanship, and durability, in a degree that could not fail to secure a market wherever they became known. The result has been a triumphant success. Within a comparatively short period the firm of Clayton, Shuttleworth, and Co., has attained a position in the trade of which few others can boast. To those who are not aware of the extent to which steam-power has already been applied for farm purposes, it may be interesting to learn that the firm alluded to alone has manufactured upwards of 4000 steam-engines, and nearly the same number of threshing-machines, and each year an increased number of agriculturalist are found ready to adopt them. Messrs. Clayton, Shuttleworth, and Co., have just issued their revised catalogue, and from the extensive list of celebrities who have adopted their machinery, together with the fact that numerous prize medals have been awarded to them both in England and elsewhere, they would certainly seem to be worthy of consideration.

MANUFACTURE OF SHEAR-STEEL.—Steel obtained by the process of puddling, and known as puddled steel and steel-iron, is found not to answer all the purposes to which it might be applied, for want of uniformity and homogeneity; puddled steel, as well as raw steel, is, therefore, either formed into cast-steel or by refining into shear-steel. As an improvement upon this mode of manufacturing shear-steel, Mr. Wilhelm Spleifield, of Unna, Westphalia, has patented an invention which consists in protecting puddled steel and raw steel against the action of the gas developed from the fuel, as well as against the action of atmospheric air, while the puddled or raw steel is exposed to welding heat, or the highest heat which it can stand without melting. For this purpose lumps or piles of puddled steel, or of raw steel, are placed in retorts or vessels made of fire-proof materials. He closes the opening into the retort by a lid with a sight-hole in it, and places the retort or vessel in a furnace to be heated: by preference he uses retorts of prismatic form. The lid should cover the opening into the retort as accurately as possible. The sight-hole in the lid communicates with a sight-hole in the furnace-door, so that the workman can at any time watch the steel within the retorts or vessels without opening the furnace-door or removing the lid of the retort. When the steel has become properly heated its surface presents a silver-like appearance, and the interior of the retort appears of a bluish-white colour. The time during which provided the heat be not increased to such a degree as will fuse the steel. After some time, which experience will dictate, the steel is taken out of the retort and hammered and rolled, and the result is a high-quality shear-steel, applicable for cutlery, wire-plates, and other purposes.

THE SCOTCH IRON TRADE.

[FROM OUR OWN CORRESPONDENT.]

DEC. 4.—Belief in testimony is the prehensile power by which information is collected. The ironmasters, merchants, and brokers, and all conversant with the Scotch iron trade, know, believe, and do testify, the stock of pig-iron in Scotland at the present moment is *not less* than 540,000 tons, exclusive of the Carron stock. It is well known the Carron Company do not return their stock; but that the trade estimate it at from 50,000 to 120,000 tons. The annual circulars issued in Scotland and England about the beginning of this year unanimously state the production in Scotland in 1860 to be 1,000,000 tons. The average number of furnaces in blast last year was 121; since Dec. last the average number is 123. The make, therefore, in 1861 is calculated between one million and twenty-thousand tons and one million and thirty-thousand tons. The local consumption and exports last year were about 900,000 tons; nobody expects they will be 930,000 tons this year.

The Board of Trade Returns show the disastrous effects of the cessation of the American trade, the effect of it upon the export iron trade is shown by the following table of the declared value of pig, bar, bolt, rod, railway, cast, and wrought-iron of all kinds from the United Kingdom in the ten months ended Oct. 31:—

	1859.	1860.	1861.
Total	£9,928,313	£9,348,177	£8,104,327

Thus showing a decrease of 1,243,850*l.* sterling in 1861, compared with the same period of 1860. When this remarkable diminution is taken into account it will not be surprising that the stock of pig-iron in Scotland alone should have increased this year 80,000 tons to 110,000 tons. It is of the greatest importance that accurate and correct statisics should be given of that article, which is the principal element of our commercial prosperity.

Stocks in stores and makers' hands for Dec. 4, 1861:—

Messrs. Wm. Baird and Co.	Tons 160,000	Summerlee	Tons 10,000
Messrs. Merry and Cunninghame	60,000	Portland	5,000
Langloan	20,000	Forth and Lochgelly	10,000
Coltness and Dalmellington	16,000	Clyde	4,000
Calder and Govan	20,000	Monkland	9,000
Kinneil and Dundyvan	12,000	Shotts and Castle Hill	4,000
Omoa	21,000	Messrs. Connal and Co.'s stores.	186,200
Almond	15,000		
Total tons			552,200

[FROM A CORRESPONDENT.]

Note of Shipments of Pig-iron from Scotland:—

For 1861, till date	Tons 555,227
For 1860, compared with same period	536,827

THE TIN TRADE.—Mr. N. Breebaart (Goll and Co., Amsterdam) under date Nov. 30, writes—The prospect of a speedy improvement in the market for tin, expressed in our last circular, has become realised in the course of this month. American orders caused, from the beginning, a good deal of activity, and gradually all the lots offering found buyers at 70¼ fl. to 71 fl. The market was already in a better position, but although the transactions had reached a certain importance towards the middle of the month, prices had barely been affected hitherto. From that period, however, the demand became more general. The market having been cleared already of the small parcels on hand, it required only a few speculative purchases to give to the article a decided tendency towards higher rates. Considerable sales took place from that moment, as well for export as on speculation, and the price advanced to 74 fl. A few hundreds of slabs were sold at 73½ fl., but, generally speaking, there are no sellers at this quotation.

BANCA TIN.	1861.	1860.	1859.
The stock on warrants amounted on Oct. 31	74,683	81,352	72,352
Deliveries in Nov.	12,655	11,388	11,341
Stock on warrants, Nov. 30	62,028	69,964	61,011
Stock in hands of Trading Society, for their annual sale	57,250	61,061	66,307

Besides the transactions in Banca, we have to report the sales of 800 slabs Billiton, the entire stock in first hands at 72½ fl., and 1100 slabs Billiton afloat at 73 fl.; there remain unsold 2150 slabs arrived and 596 slabs afloat. It is to be expected that the English smelters will advance their prices, and this will also contribute to steady our present position. Unless some unforseen incident occurs, a further improvement appears to us even likely, as the manufacturers are doing better, and the statistics are decidedly favourable, the deliveries since the sale amounting to 108,053 slabs, against 99,074 in 1860, and 91,367 in 1859.

CARVILLE MECHANICS' INSTITUTE.—On Wednesday evening, the first of the present series of winter lectures was delivered before the members and friends of the Carville Mechanics' Institute by Mr. Cooper, viewer, on "The Air we Breathe." The lecture was instructive and entertaining, and the attendance respectable. The next is to be given by the Rev. W. Saul.

GEOLOGISTS' ASSOCIATION.—On Monday (the Rev. Thomas Wiltshire, M.A., F.G.S., President, in the chair) the following papers were read:—"On two Beds of Re-deposited Crag Shells in the vicinity of Yarmouth, Norfolk," by C. B. Rose, F.G.S.; "On a Newly-discovered Outlier of the Hempstead Strata, on the Osborne Estate, Isle of Wight," by Dr. E. T. Wilkins, F.G.S.; "On the Exchange of Fossils amongst the Members," by A. Bott, A.A. Prof. Tennant, F.G.S., exhibited some specimens of gold discovered in Nova Scotia, and recently brought to this country. He read extracts from a report by Mr. Howe to Lord Mulgrave, the Governor of the colony, dated in Sept. last, from which it appears that although the announcement of gold discoveries in Nova Scotia, which was made in 1860, was to some extent premature, inasmuch as the gold fields then discovered did not to all appearances contain the precious metal in sufficient quantity to pay for the labour of working, yet subsequent investigation has led to the conclusion that gold does exits in the colony in very great abundance, and extensive workings are now being actually carried on there. In fact, Mr. Howe considers that Government will be justified in assuming that at all events in the places in the colony were the workings at present exist, if not in other places yet untried, gold mining will be permanently established as a very important branch of industry. Mr. Rickard exhibited of model of an ingenious machine recently patented, the object of which is to render common peat available as fuel to the same extent as coal, at a much less cost.

SCHOOL OF PRACTICAL GEOLOGY—PHYSIOLOGY.—Professor Huxley, F.R.S., delivered his seventh lecture on the above subject, on Saturday last. He resumed his observations on the eye, by considering the action of its different parts, and how light is brought in contact with the nervous expansion. He premised the nature of light, and how it is affected by other bodies. Light is held to be the vibrations of a subtle fluid, known as ether, set in motion by luminous bodies. The pencils of light, if unobstructed, are transmitted in nearly straight lines, but are refracted if they pass into a denser medium. This brought him to lenses generally, and subsequently to those of the eye. He then went to show how the rays of light, in passing through the cornea and crystalline lens, are brought to a focus at the retina. He now explained the terms spherical and chromatic aberration, and showed that the latter was owing to the different refrangibility of the rays composing the spectrum. Attention was now drawn to the action of the cornea and the crystalline lens, and how the latter was changed in outline by its attachment to the ciliary muscle. By this the process of adjustment is effected. The iris was shown to be a regulator, analogous in its functions to the tympanum in the ear. The lecturer now considered the structure of the retina, explaining the arrangement of its capillaries, ganglionic corpuscles, and its rods and cones.

THE SYMON FAULT IN THE COALBROOKDALE COAL FIELD.—A valuable paper upon this subject was recently communicated to the Geological Society, by Mr. Marcus Scott, mine surveyor, of Great George-street, Westminster; and as the author has had nearly twenty years' experience as owners' viewer and surveyor, his communication is entitled to every consideration. From a general review of all the circumstances, there can be no doubt that the Great Symon fault indicates the existence of an old valley, or estuary, of denudation of the coal and ironstone measures, in which, subsequently, other strata of the coal measures were deposited, and that these were partially washed away again. The information that he has been able to obtain, as regards the Randie and Clod Coal, south of pit (the southernmost pit in Stirchlee parish), leads him to the conclusion that the Symon fault has never entirely cut off that coal and the three coals immediately above. He believes that the working was abandoned only because the coal was a little deteriorated by denudation, and other portions of the property being at the time of the abandonment more easily worked. He finds the whole of the coals at pit (the Halesfield Pit, in Madeley parish) but slightly altered as to their relative position and thickness, with the Calamincar and the several rocks and clods above. He assumes, therefrom, that there is every probability of an area of coal and ironstone being found (at least it is to be hoped so) at a workable depth in the unexplored district between the F and G pits, and possibly underneath the lower red sandstone, where hitherto none was expected by practical workers.

SOCIETY OF ENGINEERS.—The annual dinner of this society took place on Thursday evening, at Radley's Hotel, New Bridge-street. Among the guests, who numbered nearly 100, were several gentlemen of eminence in the engineering and scientific world, among others may be mentioned—Mr. Amos, the present Chairman of the society, and who ably presided upon this occasion, being supported by Mr. Christie, Mr. H. P. Stephenson, Mr. Light, the Rev. Dr. Light, Mr. Louch, Mr. E. J. Walton, Mr. P. F. Nursey, &c. This society, which mainly owes its initiation, position, and advancement to the indefatigable exertions of Mr. Alfred Williams, the hon. secretary, was established in 1854, since which period it has steadily and satisfactorily progressed, at the present time numbering nearly 300 members, among whom are several who hold no mean position in the scientific community. During the year several valuable papers have been communicated, and the subjects treated being freely discussed, the members have ample opportunities of receiving and according opinions, which, to engineers, cannot fail to be of inestimable value. The society has now attained such a position as to justify a proposal for taking a suite of rooms, to be provided with all the conveniences and advantages of a club-house. Mr. Riley, F.C.S., has been unanimously elected the Chairman of the society for the ensuing year, who will, no doubt, give as much satisfaction to the members generally as has characterised the presidential career of Mr. Amos, whose term of office expires with the present year.

ASSOCIATION OF ASSISTANT ENGINEERS, GLASGOW.—At the usual monthly meeting of members, Mr. W. R. Copland, the Chairman, introduced Mr. A. B. Ghewy, who read an able and very interesting paper "On Boring Machinery for Mining Purposes." He began by speaking of boring generally, of its antiquity, and of the various kinds of machinery employed—ultimately addressing himself to a description of a machine invented by Mr. Paton, engineer, Govan Ironworks, and now in successful operation. Of this machine a large-sized drawing was exhibited, as well as a model of the ordinary boring machine. The paper was listened to with marked attention, and elicited some warm discussion.—Mr. Alex. Russell next submitted the model of a machine for cutting iron for tubes, and gave a description of its *modus operandi*, as well as a practical demonstration on some pieces of tin. Several questions asked by members were satisfactorily answered by Mr. Russell.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

DEC. 5.—The Iron Trade keeps quieter than it was a month ago. It does not appear that this in any degree arises from the events which have rendered war with the Federal States of North America a possibility, although it is hoped that it may be avoided. So far as the immediate effect of such a war on the Iron and Hardware Trades is concerned, it would probably be rather to increase than to diminish the demand. Naval requirements would at once operate, whilst shot and shell, and a variety of appliances would quicken operations at the foundries and other works. Again, a war with the Federal States would be speedily followed by the opening of the ports of the Confederate States, and that cotton, for the want of which short time is being worked in Lancashire, which necessarily greatly diminishes the demand for iron and hardwares in that populous and wealthy district, would be released. Of course war would be a terrible calamity, and every right sentiment urges its avoidance if possible; but so far as South Staffordshire is concerned, the demand for its productions would suffer but little.

In the Naval and Military Intelligence of the *Times* it has been stated with constant reiteration that the dockyard authorities at Chatham have had to reject a large quantity of iron, owing to its being unequal to the Government requirements, and it is added that the Admiralty find it impossible to procure good iron for the purpose. To everyone acquainted with the trade this statement must at once appear absurd. It is a sufficient answer to it to say that the eminent shipbuilding firms on the Thames and the Mersey find no difficulty whatever in obtaining iron for the construction of the iron-plated vessels which they are building for Government. The iron they use is subjected to precisely the same tests as that used in the Government dockyards, and the test is applied by Government officers. A large quantity of iron for these firms is produced in South Staffordshire, and not a single hundredweight has ever been returned; on the contrary, special approval has been expressed respecting it. Yet parties from whom the contractors purchase have tendered to supply Government, but their tenders were declined, no doubt because lower prices were offered. The result is that the Government, in trying to save, perhaps, 10s. or 1*l.* per ton, lose an immense amount by the stoppage of their operations, to say nothing of the possibility that part of the inferior iron may have been used, and may deteriorate from the value of the vessel. It is not because the Admiralty authorities are so remarkably economical that they have thus accepted low tenders, and got inferior iron. As an illustration, take the fact that the ordinary contract for the dockyards for the supply of iron, and which applies to a very large quantity annually, is taken for three years. At the end of that period it is subject to being terminated by either party. It was last offered at the close of 1856, and was liable to be closed in 1859. At that time the official price of iron was 30s. per ton less than when the contract was made, yet the Government allowed a new three years' extension to be given to it. Since then a further reduction of 10s. has taken place, so that the country is paying 2*l.* per ton above the market price for iron used at all the dockyards in the kingdom, which would amount to an enormous sum.

At a colliery at Tipton, last week, a young man who was ascending the shaft with three others, from some unexplained cause, fell out of the skip, and was killed. He was to be married at Christmas, and was working extra hard to gain a little more money; and it is thought that he was exhausted and turned giddy, as he had done a day and three-quarters work that day. At the inquest Mr. Baker, the Government Inspector, observed that many accidents of this nature occur, and he advised that a small chain attached at the top to the rope, or chain, should be put round the body of each man ascending or descending, which would cost very little, and might be very readily applied. Mr. Baker said he always used one himself, and that they were being gradually adopted in the district.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

DEC. 5.—The prospects of a brush with America has created considerable excitement amongst commercial men, and all sorts of opinions are speculated upon the probable result. The effect of the intelligence has not disturbed the steadiness which has characterised the Iron Trade for the last three weeks, and the demand for all descriptions is somewhat improved for first-class brands. The inferior makes of iron are slow of sale, and manufacturers have to accept lower prices. The Steel and Hardware Trades of Sheffield are in a deplorable state, and a great number of persons are out of employment. The depressed condition of the cotton trade has also produced great distress throughout Lancashire; and it is calculated, on good authority, that by the end of the year one-half of the operatives will be out of work. The Coal Trade has improved throughout the whole of these counties, but the consumption is far short of the average of former years. The South Yorkshire coalowners, after a long series of struggles, have just achieved a triumph in the free trade principle, which will rapidly improve the trade of the district. It is well known that the Manchester, Sheffield, and Lincolnshire Railway Company have been coaldealers as well as carriers, and that for the last two years a case has been pending to restrain the company, as carriers, from trafficking in coal as merchants. The company have now agreed to give up their traffic in coal as traders, and to confine themselves to their more legimate trade of carriers. The coal depôts on the line are to let, and the coal trade of South Yorkshire will henceforth be free to the legitimate coalmaster. The company had with their contract with the Birley Vale Company 1450 coal wagons, which will now be placed in the service of the coalowners, so that the complaints of the scarcity of wagons will now be done away with.

A deputation of Sheffield tradesmen waited upon the Midland Railway Directors, on Monday last, for the purpose of pointing out the most desirable route for the intended new railway, which is to do so much for the development of the minerals of North Derbyshire, and be of such great service to the town of Sheffield. It was urged that there ought to be a mineral station on the Sheffield Moor, and that the line should be made down the valley of the Sheaf, so as to accommodate the numerous works in that locality. They contended that were these views adopted three objects would be attained—namely, a central passenger station, a mineral station near the principal works, and accommodation to a vast population. It was calculated that the works already built consumed 130,000 tons of coal and coke per year, and that there were 25,000 dwelling-houses in the district, which consumed 120,000 tons of coal per annum. The Midland Company promised their best attention to the suggestions. The Midland dividend for the current half-year is to be at the rate of 7 per cent., which is mainly attributable to the increase in the mineral traffic.

The half-yearly meeting of the Eyam Mining Company was held on Friday, when a report and statement of accounts were read, which were considered highly satisfactory. The company had paid four 10s. dividends during the half-year, and had about 1400*l.* in the bank as a reserve fund. A large amount of dead work had been done, but the mine was in an improving position. The Mill Dam Company are getting a large quantity of ore, and the mine was never in a more promising position. The North Derbyshire is still in the unsatisfactory state we last noticed it. The other mines do not call for special remark. The share market, with one or two exceptions, is flat.

REPORT FROM MONMOUTH AND SOUTH WALES.

DEC. 5.—The American difficulty, and its probable effects upon the trade of the district, have been the chief topics of interest during the last few days. As yet trade has not been affected in this neighbourhood, but, on the contrary, the demand for coal seems to be increasing. There are a larger number of vessels waiting for cargoes at Cardiff than has been the case for some time. These vessels are principally bound to the Mediterranean and the French ports, and are almost exclusively engaged in the coal trade. At Newport things wear an improving aspect, and a fair business is doing. The Ebbw Vale Works are progressing steadily, and Mr. Darby, the managing director, who has recently taken up his residence at Ebbw Vale Park, is making considerable alterations in nearly every branch of the company's extensive works.

At the Merthyr Police Court, on Saturday, before Mr. Fowler, the stipendiary magistrate, Mary Macarthy and Julia Macarthy were charged with stealing 192 lbs. of coal, the property of the Dowlais Company. The case was clearly proved against both prisoners, and they were committed for ten days each.—William Edwards was brought before the same magistrate, on Monday, charged with stealing 3 cwts. of coal, the property of the Dowlais Company. The prisoner is the owner of some property in Dowlais, and the case excited considerable interest. Mr. Simons appeared for him. Police constable Jenkins said—"On Thursday last, about three o'clock, I saw Edwards at the bottom of the tip, near Cwmbargoed Pit, with a horse and two panniers. He was filling coal into the panniers. I charged him with stealing the coal. There is a notice painted on a piece of sheet-iron, prohibiting parties taking anything off the tip. Cross-examined by Mr. Simons: The refuse of the works is thrown on the tip. There is not a quantity of the coal carried to a distance by water. It was all clean coal, and there was no part of it burnt. Prisoner came from the direction of Rhymney. Did not know that he had been there that day. Did not know him. Did not know that he was a farmer, and the owner of a farm. Have since heard he is. Did not know that he kept a pack of hounds. —Mr. Simons, in an able address, urged on his worship that there was no proof of a felonious intent. It was taken publicly, in broad daylight, in the presence of a police constable, and while the men were at work on the tip. He should contend that it was

not the property of G. T. Clarke, it not having been weighed; there was no royalty paid, consequently it was either abandoned waste, or the property of the lord of the manor. It was perfectly useless, and would be more expense to gather it than its value, hence for years no attempt had been made to prevent any one taking it, and the stream of water running at the bottom of the tip sometimes carried it a considerable distance, it being lighter than the ironstone. This was the origin of the coal trade of the town of Newport. The coal crop being so near the surface was loosened by the flood and carried down by the river Usk, in such quantities as to supply the whole neighbourhood, and many cargoes were also sent off at the commencement of the ironworks in the neighbourhood, who got their supply in the same manner. When that failed, they adopted the scouring system, guiding their large ponds of water on to the coal beds, for the purpose of loosening it. The learned advocate then contended that the prisoner had a right of common, and as such, a right to any deposit on the surface. He then called several respectable farmers, who deposed to their having a right of common; that they had been in the habit of using the refuse from the tips for many years without let or hindrance. He then further contended that there was no felonious act, if it were trespass. Let the Dowlais Company enter an action for the purpose of trying the question. This extraordinary and ingenious defence took the Court by surprise, and Mr. Fowler said, if Mr. Simons's statements were correct, it was of vital importance to the owners of mines, who had to deposit large quantities on the surface. He could not see it, however, in the same light, but would consider the matter, and for that purpose would remand the prisoner until Saturday, on his own recognisance.

At the South Wales Institute of Engineers next meeting, on Wednesday, Mr. R. Schmidt's paper, read at the last meeting, "On Prof. Zenner's diagram for showing the motion of the slide valve," will be discussed, and the following papers read and discussed:—"On the sanitary condition of mines," by Mark Fryar. "On the Pembrokeshire Coal Field," by Mr. A. Murray. "On a plan to improve canal locks, and to render canal carriage less costly," by Mr. G. Ashcroft. "On Giffard's Injector," by Mr. T. D. Steel.

At the Swansea Police Court, on Tuesday, William Newton was charged with having stolen a quantity of copper, value 10s., the property of Messrs. Grenfell and Co., Upper Bank Works, Llansamlet. Mr. Lefeaux, one of the agents, found some copper secreted behind a pillar in a shed on the works. The prisoner was suspected, and one of the men was put to watch the copper. The prisoner was seen going into the shed, and immediately afterwards the copper was missed. A constable searched the prisoner, and found the copper secreted in his clothes. Newton pleaded guilty to the charge, and he was committed for three months with hard labour.

The iron and coal works are fairly employed throughout the district. In the *Mining Journal* of last week it was stated that there was every probability of an additional furnace being blown in at the Gadlys Works, Aberdare. This welcome event has now taken place, and employment is thereby afforded to at least 500 men.

The arrivals at Swansea include—the Peru, from Caldera, with 3712 bags of silver ore, weighing 250 tons, value 15,000*l.*, and 300 tons of copper regulus, for Henry Bath and Son; Rose of England, from Caldera, with 2155 bags of silver ore, weighing 150 tons, value 8500*l.*, 44 tons of copper ore, and 400 tons of copper regulus, for Henry Bath and Son; Mohican, from Caldera, with 340 tons of copper regulus, 537 bags of silver ore, weighing 46 tons, value 3000*l.*, 113 tons of argentiferous ores, one box containing 2 cwts. of lead ore, &c., for Henry Bath and Son; Hampshire, from Cuba, with 770 tons of copper ore, for the Cobre Company; Ariel, from Hondeklip Bay, with 290 tons of copper ore, for Henry Bath and Son; Havannah, from Havannah, with 193 tons of copper ore, for Henry Bath and Son.

Meetings of Mining Companies.

GREAT BRIGAN MINING COMPANY.

A general meeting of proprietors was held at the company's offices, Austinfriars, on Thursday, Mr. Eves in the chair.

The notice convening the meeting having been read, the minutes of the last were read and confirmed. The accounts showed:—

Balance last audit	£4166	13	10			
May mine cost, merchants' bills, &c.	522	6	5			
June ditto	400	13	10			
July ditto	433	14	2			
August ditto	334	17	11			
September ditto	301	15	11			
October ditto	299	0	0			
Dues	31	3	2	= £6490	3	3
Call	£4250	0	0			
Copper ore sold	812	15	9	= 5062	15	9
Leaving debit balance				£1427	7	6

The report of the agent, Capt. T. Trelease, was read, as follows:—

Dec. 3.—In handing you my report of this mine for the general meeting, I beg to inform you, more particularly the new adventurers, that we have erected a new 70-inch pumping-engine of the first-class complete, in good working order, of sufficient power for draining the mine to the bottom (which is reported to be about 60 fms. below the adit), and sink the mine, say, 80 fms. below the present bottom; we have also 17 fathoms of 18-in. pumps on the mine for dropping below the adit, with the house water-lift, rods, &c., and everything complete, and in good working order, with the bearer put in for the drop-lift, and the engine-shaft cleared 9 fms. 3 feet below the adit level. This level is cleared, secured, and laundered throughout the sett for the discharge of the water, and we are now in a good position to drain the south part of the mine, on the Old Brigan lode, which appears, from what can be seen in the adit level, to have been worked very extensively, as the greater portion of the lode has been taken away at and about this level for upwards of 100 fms. in length; and judging from this, with the beautiful strata and elvan course running parallel with the lode to the south, and the comparatively shallow depth this has been wrought upon, it is a speculation of no ordinary character, besides having a tin lode a few fathoms to the north, running parallel, which the old workers appear to have taken but little notice of it, being only cross-cut about the engine-shaft, which is from 2 to 3 feet wide, composed principally of capels, and showing a small portion of tin. About 40 fathoms west of this part it fell in with the Old Brigan lode, where it made a small bunch of tin, and we have now at surface about 30*l.* worth of tinstuff; this clearly shows it is a tin-bearing lode, and when laid open in deeper levels we have reason to expect it will prove profitable and productive.—Middle Lode: This lode stands about 78 fathoms to the north of the tin lode, the deep adit cross-cut passed through it, and a shaft sunk from the surface on its course, also opened on west of said shaft about 16 fms. This lode is about 15 in. wide, composed of quartz and capel, with stones of copper ore, and appears, from what can be seen at present, to be almost entirely in unexplored ground for the whole length of the sett, and which, in course of time, we shall have to develope.—North Treskerby Lode: This lode stands 60 fms. north of the above lode, and is intersected by the same cross-cut, and we have opened east on its course 20 fms. This lode in the first 15 fms. averaged from 2 to 3 feet wide, containing some very good stones of copper ore, which on assay produced 28¼ per cent. of copper; since then the lode has been rather small, and split into branches. In driving west of the said cross-cut we have opened 16 fms.; the lode for the whole of this driving has averaged from 2½ to 3 feet wide, carrying a small quantity of copper ore for the whole distance, and still producing some very good stones of ore of a promising appearance, and from indications I am firmly of opinion that when explored to deeper levels it will improve, and produce a quantity of ore. At Oate's shaft, which is 48 fms. west, we have intersected this lode near the cross-course, where it is apparently by the influence of the cross-course split into branches, and there is no doubt, when getting clear of the disordered ground, that the lode will again resume its regularity. I beg to remind you that this part of the sett, on the course of this and the other north lodes, is entirely in virgin ground up to the county cross-course, which is 200 fathoms long, and looking at the geological position of the surface, I consider it to be one of the most promising parts of the sett. The trial shaft is now being sunk by nine men on the course of this lode, 8 fms. 3 feet below the shallow adit level; the lode at present is from 4 to 5 feet wide, and worth about 12*l.* per fm., and likely to improve, having got clear of the slide which disordered the lode for several fathoms sinking. Our progress in sinking this shaft has been very much impeded in consequence of the rain, from which we have been under the necessity of putting down a 6-in. lift, which is now worked by horse-power. However, this appears to be a very promising lode indeed, having returned upwards of 700*l.* worth of copper ore before even reaching the deep adit level, with an expenditure of a little over 1000*l.*; this alone is quite sufficient to warrant a spirited trial on this part of the sett, and especially when it is known that the lode has not been developed at any part of the sett below the deep adit. Whip shaft is sunk 9 fathoms below the shallow adit level, and intersected this lode, but now suspended: owing to the influx of water we could not see enough of the lode to ascertain its size and character, but hope soon to resume the sinking, as it will be drained by the sinking of trial shaft, and driving the deep adit level towards it. Trevenning's lode stands about 25 fms. to the north of North Treskerby lode, and underlies south about 3 feet per fathom; this lode produced a good deal of ore in the back, and will intersect North Treskerby lode about 30 fms. below the deep adit level, when favourable results may be looked for. With regard to forking the old or south part of the mine in conjunction with the Great North Downs, I have carefully considered the matter, and I calculate it will take from nine to twelve months to drain, clear up, and put the mine in good working order, say, with an expenditure of not less than 800*l.* per month, to carry out all the operations that may be required throughout the mine; the returns of ore that will be made I have every reason to believe will greatly reduce the amount required. In conclusion, I beg to say, looking at the local position of the mine, with the different lodes, cross-courses, strata, and elvans, traversing the sett, and situated near the granite hill, it is my opinion, with many other practical men, that the mine will not fail to prove a lasting and profitable concern.

The Chairman, having moved the adoption of the report and accounts, said they had passed through some difficulties, all of which he was happy to say had been surmounted or arranged, and from the report of Capt. Trelease, which had just been submitted, he (the Chairman) thought they had every reason to believe that Great Brigan would prove to be a remunerative property. It was satisfactory to hear that the Great North Downs Mine was about to be vigorously prosecuted, because he thought there could be no doubt that by working that sett not only would its proprietors be rewarded for their outlay, but that they, the Great Brigan proprietors, would also be benefited by materially reducing their water charges. He trusted the shareholders in both mines would during the next 12 months be rewarded for their perseverance and outlay.

The Purser, referring to the prospects of the mine, said it would be seen by the section that the North Treskerby portion of their sett was of great promise. The returns from that point had already amounted to 820*l.*, the whole of which had been raised from workings not deeper than 25 fathoms from surface. The trial shaft was sinking close to the boundary of North Treskerby, and North Treskerby was sinking a similar shaft close to the Brigan boundary, and in each mine a valuable lode was being developed. The deep adit was being forced on by a full pare of men, in order to reach the bunch of ore, and from every indication there was reason to hope they would lay open a valuable run of ore ground.

Capt. Trelease explained the various points of operation by means of a section, stating that it was the opinion of everyone who knew anything about the property, and in that opinion he most fully concurred, that a judicious and vigorous development would result in a remunerative issue. In answer to questions, he further stated that the Great North Downs engine would fork the water at Great Brigan to at least 15 or 20 fms. below adit, and that he would be able to clear the shaft at Great Brigan quite as rapidly as the engine at Great North Downs could fork the water. He strongly recommended the three mines, Great Brigan, North Downs, and Wheal Rose, to divide their water charges, for by that arrangement each would reap a material advantage.

The report and accounts were then received and adopted.

The Chairman said the next point had reference to their finances. Deducting the arrears of call, to recover which measures must be forthwith adopted, there remained a deficit of something like 1400*l.* Now, he understood it was thought that the best course they could adopt would be to make a *pro rata* distribution of that amount, being, in fact, a division of the costs, which would amount to a call of 5s. 9d. per share.

Mr. F. Pryor fully concurred in the views of the Chairman.

After some discussion, upon the proposition of Dr. Mathew, seconded by Mr. F. Pryor, a resolution was passed dividing the back costs, giving a *pro rata* call of 5s. 9d. per share, when a resolution was passed empowering the purser to take proceedings against all shareholders in arrears of call.

The Purser said the next matter which had to be submitted had reference to the subject of the water charges, as already referred to by the Chairman. The resolution was to the effect that the committee be empowered to make such arrangements with the adjoining mines in respect to the water charges as they might deem necessary.

Dr. Mathew having proposed the motion, during which he referred to the great mutual advantages which must necessarily result from the carrying out of such an arrangement,

Mr. F. Pryor seconded the proposition. He assurred the proprietors he did not know any mine in the county of Cornwall that presented such chances of success as Great Brigan. He felt quite confident if the whole of the details were carried out judiciously and economically, and especially the proposed arrangements with regard to the water charges, that Great Brigan would ultimately prove to be a most valuable property; in support of which opinion, the best evidence he could adduce was the large interest he himself held in the company.—The resolution, being put, was carried unanimously.

The Chairman said since the last meeting the committee had appointed Mr. E. King to fill the office of purser—than whom no person could be better qualified,—but that appointment required the confirmation of the shareholders at a general meeting.

Mr. F. Pryor would esteem it a great favour if he were permitted to propose a resolution confirming the appointment of Mr. Edward King as purser of the Great Brigan Company, for he must say he did not know any one better qualified to efficiently discharge the multifarious duties which pertain to the office of purser of a mining company than Mr. Edward King. Perhaps there were few persons who had better opportunities of judging of the peculiar capacities possessed by pursers than he (Mr. Pryor) had, and it was with the greatest pleasure that he bore testimony to the vigilance, ability, and perseverance which had so strikingly characterised Mr. E. King's career as mining secretary or purser. Although Mr. King had been connected with the Great Brigan but a short period, yet he had already done a great deal for them in dissipating the difficulties which had retarded their progress. Mr. King had, to his (Mr. Pryor's) mind, satisfactorily adjusted the whole of the difficulties, and the arrangements contemplated with regard to the Great Wheal Busy, Great North Downs, and Great Brigan would, he was confident, produce most satisfactory results to each of the respective properties. Under those circumstances, it was with no small pleasure that he proposed the confirmation of the appointment of Mr. E. King, as purser, and also that the best thanks of the meeting be accorded to him for the prompt manner in which he had brought about an amicable arrangement of all the pre-existing difficulties, and also for the successful plan which he had consummated in connection with water charges of the adjoining properties.—Mr. M'Callan fully concurring in the views expressed by Mr. F. Pryor, had much pleasure in seconding the proposition.

The Chairman, in putting the resolution to the meeting, most cordially agreed in the encomiums passed upon Mr. King, and trusted that success would soon attend their united co-operation. The resolution being put was carried unanimously.

A resolution was then unanimously passed, according to Mr. Goatley, the late purser, the best thanks of the proprietors.

Messrs. Ives, Pinniger, F. Pryor, M'Callan, Hunter, Harvey, and Dr. Mathew were appointed the committee of management.

A vote of thanks was then passed, when the proceedings terminated.

GREAT NORTH DOWNS MINING COMPANY.

A preliminary meeting of the promoters and others interested in the formation of this company (to which attention was drawn in last week's Journal), was held at the company's offices, Austinfriars, on Wednesday,—Mr. J. Pinnigton in the chair.

Mr. Edward King having submitted a list of shareholders, which showed that nearly all of the shares (6000) into which the enterprise has been divided had been accepted.

The Chairman said that all present were undoubtedly aware of the object for which the present meeting had been convened—taking the necessary steps for the formation of a company for the vigorous prosecution of a mineral property hitherto known as the North Downs and Wheal Rose, the operations of which, after an expenditure of 18,000*l.*, were suspended, from various causes in no way connected with the value of the property. But, irrespective of the fact that the sett was very valuable, and that in past years it yielded large profits, the resumption of operations at North Downs and Wheal Rose, as at the Brigan Mine, would materially aid the operations at Great Wheal Busy by relieving the water charges, and thus considerably reduce the working cost. Being himself a large shareholder in Great Wheal Busy, and knowing that Mr. E. King had recently purchased the before-named property, he had recently visited Cornwall, for the purpose of investigating the whole of the matter, to ascertain what were the prospective results of re-working the Great North Downs, and also the advantages that were likely to accrue to Great Wheal Busy. From all the information he could obtain from practical and other sources, the conclusion he had come to was that the Great North Downs Mine presented features of great promise. He based that opinion upon the fact that the mine, which had been explored to a depth only of 50 fathoms, contained no less than eleven copper lodes, most of which had been wrought on above the adit level; that it was situated in one of the best mineral districts in the county, that its intrinsic value had been satisfactorily tested, and that the re-working the property must necessarily have a material and permanent effect upon the operations at Great Wheal Busy, by considerably diminishing the water charges, which would not only enable them to develope the mines much more expeditiously, but they would be placed in a position to make increased returns at a more moderate cost, and thus permanently augment the profits. Under those circumstances, he had taken a large interest in the Great North Downs Mine, and strongly recommended the meeting to follow his example, and to determine to forthwith vigorously proceed with the development of the property.

Mr. Fielding fully concurred in the opinion just expressed by their Chairman, having himself recently visited the mine, and entered minutely into the whole of the details connected therewith. If at the present meeting a call of 1*l.* per share was made upon the 6000 shares into which the undertaking had been divided, 10s. to be paid down, and 10s. upon April 1, 1862, a sufficient sum would be realised for the purchase of the whole of the plant, machinery, &c., and also to carry on the operations for the next six months.

A Proprietor stated that he recently conversed with the late manager of the Great North Downs Mine, from whom he had ascertained such facts as had induced him to come to the conclusion that the property presented various points of promise, equal to any mining property in the county; and that, after the large but economical expenditure that had been made upon the property, and providing it with machinery, it only required a very small outlay to bring the property into an efficient working condition. The large quantity of copper that had been raised from above the adit level proved that the lodes were most productive; and for his part he saw no reason why a mine which had returned so much at such a shallow depth should not, upon reaching the second bunch of ore, be more productive than in the former working. The great drawback to the continued successful development of this property had been the excessive water-charges, but seeing that Great Wheal Busy, to the east, was in full course of profitable operation, that Wheal Rose was about to be provided with a 70-in. engine, and that the Brigan Mine had already a 70-in engine at work, it was palpable that the water charges being thus divided among so many setts, each pumping-engine would have but a moderate amount of duty to perform, and thereby the working cost of each would be diminished, and at the same time the respective properties could be much more expeditiously developed. He looked forward to having a productive mine in 12 months time.

It being agreed that a call of 20s. per share upon the 6000 shares of the company should be made, 10s. to be paid down, and 10s. upon April 1, a resolution was then passed empowering the committe e to make such arrangements with the adjoining mines with respect to the water charges, as they may deem necessary.

Mr. Edward King said that the next step was the appointment of the agents. Several applications had been made, which were submitted to the meeting. Upon this subject a long discussion ensued, during which it was intimated that Capt. Trelease, the managing agent at Brigan Mine, was well qualified to conduct the operations of both mines. A resolution was accordingly agreed upon that Capt. Trelease should be appointed the manager of the mine. Captain Martin Jenkin appointed underground agent, and Mr. Moses Bawden, of Great Wheal Busy Mines, superintending clerk.

Dr. Mathew considered that the prospects of the mine were such as to warrant a spirited trial. He reminded the meeting that each person who took a 1*l.* share would have the benefit of an expenditure of 18,000*l.* He trusted, after the resolutions which had been passed that day, the 80-inch pumping-engine would be got to work immediately.

Mr. E. King said the mine was provided with a large quantity of machinery, having, besides an 80-inch engine, a good drawing-engine and crusher, and about 100 fathoms of large pitwork, whims, &c.—in fact, all the plant of an extensive mine. When formerly worked it had given upwards of 200,000*l.* profit, and the mine was not developed below the 50 fathom level. It had North Downs on the west, which was making dividends; Treskerby on the east, which would soon be in the Dividend List; and the Brigan Mine, therefore, he saw no reason why Great North Downs should not be equally successful as it had been in past times.

The following appointments were then made:—Mr. E. King, as purser; Messrs. Loam and Sons, engineers; Messrs. G. A. and T. Michell, surgeons; Messrs. Willyams and Co., Miners' Bank, Truro, were appointed the company's bankers.

The following gentlemen were appointed the committee of management:—Messrs. Pinniger, E. Bridges Willyams, E. Hunter, J. Fielding, and Dr. Mathew.

The usual complimentary votes terminated the proceedings.

ST. DAY UNITED MINING COMPANY.

A general meeting of proprietors was held at the company's offices, Austinfriars, on Tuesday, Mr. J. Balster in the chair.

Mr. E. King (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

The accounts for the four months, ending Aug., showed—

Call	£2000	0	0			
Copper ore sold	1365	4	4			
Tin ditto	7702	6	4			
Arsenic	100	0	0			
Stamps' rent	89	12	0			
Old materials	133	13	1	= £11,390	15	9
Balance last audit	£1444	19	11			
May mine cost, merchants' bills, &c.	2249	15	0			
June ditto	2232	6	7			
July ditto	2552	11	6			
Aug. ditto	2434	5	4	= 10,913	18	4
Leaving credit balance				£ 476	17	5

Upon the four months' operations there was a loss of 78*l.* 2s. 8d.

The report of the agent was read, as follows:—

Nov. 30.—The 114, at Wheal Unity, west of Davie's shaft, on the old lode, is now producing fine stones of ore, with a very kindly appearance; we are induced to believe that we shall open up some valuable ground in this part of our mine, as there is no level under the one referred to. The lode in the winze sinking below this level is 6 feet wide, and is presenting very good appearances, and worth 10*l.* per fm. We have commenced driving the 124, which is within 8 fathoms of the above winze; the lode in this level is also producing fine stones of ore. We look forward with much interest to the development of this part of the mine, and looking at the recent change in the appearance of the lode we have every reason to expect good results.—Poldice: Trussall's North Copper Lode: The 162, west of shaft, will produce 1 ton of ore per fm. The 144 east is also worth 1 ton per fm. The lode in the 114, west of Trevivian's, is worth fully 10*l.* per fathom for tin. The lode in the 153, west of Bissoe Pool, will produce 3 tons of good ore per fm. We have frequently referred to the importance of this level, the same being going back under Opie's shaft, where the upper levels have produced very large quantities of ore; this end has let down the water, so as to enable us to commence winzes in the level above after it is cleared. The 162, west of shaft, is producing good stones of ore; in driving this end about 3 fms. further we shall reach some ore ground gone down in the level above; this end is not so far west as the 153 by 40 fms. Billing's shaft is now sinking below the 164, and is worth full 70*l.* per fm. The 164 is extended 9 fms. east of shaft, and is worth full 55*l.* per fm. The 164 is extended west of shaft 7 fms.; lode worth 40*l.* per fm. The stopes in the back of this level (the 164) are worth 45*l.* per fathom. The 154, east of shaft, is producing saving work for tin; this end has gone through a valuable piece of ground for 45 fms. in length. The 154 is extended west of shaft 30 fms., and up to the last 7 fms. the lode has been better than it is now; I think it right, however, to mention in driving this level within 7 fms. of the present end the lode split, and at this time the part we have driven on is, and has been, poor. We commenced a cross-cut south, and have just cut the other part of the lode, but have not yet seen the south wall, but from what we have seen of it it is worth 15*l.* per fathom. In order to further prove the value of this part of the lode, which we have not seen much of, we have commenced to sink a winze on it, and is worth full 20*l.* per fm.; this winze is down 9 fms. The stope in the 154, east of Billing's, to make Opie's shaft, is worth for length of shaft 24*l.* per fm. From this you will observe that the new or Opie's shaft will come down in its proper place, thus proving the views we submitted to you in our last report for the meeting to be correct, and we may as well add that this shaft will be commenced below this level in a beautiful channel of ground, and in a fine course of tin. We estimate this shaft can be sunk as the permanent sump-shaft for 14*l.* per fathom—that is until we get below Billing's shaft. We are getting on very rapidly with the completion of Opie's shaft, and will be done in the time we estimated. We are also getting on as fast as the weather will admit of in building the engine-house, and in doing every other necessary work for the new engine. From this report you will observe our prospects for tin are very good, and should our prospects for copper brighten up a little we shall very soon be in a much better position, and from present appearances we have every reason to expect it will. As a proof of the value of our tin discoveries in the bottom of the mine we have sold this month nearly 40 tons of tin, and had we been able to burn it we should have sold 45 tons. Our pitches throughout the mine are much the same as for some time past.—F. Pryor, E. Ralph, J. Cock, J. Gilbert.

The Chairman, in moving the adoption of the report and accounts, stated that he had recently visited the mine, and was much pleased with the general prospects presented. The returns of the present month had been nearly 40 tons of tin, and as it had been seen by the report of Mr. Pryor, just read, there were many points of operation which possessed very encouraging features. As the committee of management held one-third of the company's shares, proprietors might rest perfectly satisfied they would continue to sedulously promote the best interests of the company. Mr. Francis Pryor, their manager, was present, who would be glad to afford any information that shareholders might desire.

A Proprietor enquired if Mr. Pryor attached much importance to the discovery recently made in Wheal Unity?—Mr. Pryor replied that he considered the discovery at Wheal Unity a most important point, as it opened up an entirely new feature in connection with their own property. In sinking the winze below the 114 they had found the lode to be worth 10*l.* per fm., and presented every indication of a great improvement. The 124 was within 8 fms. of this point, where a great change had taken place in the character of the lode—indeed, there was every indication to justify the assumption that they were in the neighbourhood of a second deposit of ore. If such should prove to be the case, the 134 fm. level would be at once brought on, and Davey's shaft set to sink from the 124 to the 134. Whether it was a shoot of ore dipping west from Todpool, or whether it was the course of ore coming down from South Goriand, it was at present impossible to say, but he was most certainly inclined to the belief that the latter would prove to be the case; if so, their future samplings of copper would greatly increase. It was of the greater importance, inasmuch as that part of the mine had hitherto been a drag upon the company, their profits having been made from the tin ground. Had tin maintained its price, their accounts would have stood something like 1000*l.* or 1200*l.* better; but all they wanted was an improvement in their copper returns to bring them to that profitable position which some time since they occupied. The mine, generally speaking, never presented more encouraging features; the bottom of the mine especially looked remarkably well.

The Chairman considered the improvement near the 114 fm. level a most important point, as it gave them ground for hoping that their copper returns, which had lately fallen off, would soon be increased to their former magnitude.

A Proprietor enquired the distance between the 153 west of Bissoe Pool and Hoppey's shaft?—Mr. Pryor replied about 100 fms., but in parallel ground. It was in the lode at Bissoe Pool that the Messrs. Williams placed more confidence than in any other part of the mine. By the time of the next meeting he thought they would have accomplished three or four important objects, which would place their affairs in a much more satisfactory position than at present.

Mr. James enquired if there was any probability of a diminished expenditure?

Mr. Pryor said that their expenditure had of late been increased by much necessary new work that had to be performed, such as putting up new engine, &c. When, however, that engine was fairly at work, there would be a large quantity of spare materials to dispose of, for they would no longer require the engine at Trussall's, and the month's cost would be less.

The Chairman regarded that as a fact of twofold importance, for they would not only have the engine and materials as an available asset, but at the same time their consumption of coal would be materially diminished.

The report was then received and adopted, and the accounts passed and allowed.

The Secretary, in answer to a question, stated that several local shareholders had recently increased their interest in the undertaking.

The committee of management were re-elected, with thanks for past services.

The Chairman, on behalf of the committee, having thanked the shareholders for their renewed mark of confidence, the usual courtesy to the Chairman was accorded, which terminated the proceedings.

COPIAPO EXTENSION (PABELLON AND CHANARCILLO) RAILWAY COMPANY.

The ordinary half-yearly meeting of proprietors was held at the company's offices, New Broad-street, on Nov. 29,—Mr. J. Labouchere in the chair.

Mr. E. J. Cole (the secretary) read the notice convening the meeting, and submitted the report of the directors (an abstract of which appeared in last week's Journal). It informed the proprietors that the second locomotive (named the Chanarcillo) had arrived shortly after the last meeting. With the valuable assistance rendered by the engineer of the Copiapo Railway Company the locomotives were speedily put together, and the result of their working had been eminently successful. The silver mines were improving, and an important addition will immediately take place in the traffic, by the opening up of the copper mines in the Castilio district. A requisition had been sent in by one of the miners for cars to transport 4000 quintals monthly, and the director in charge writes, under date, Sept. 18—"Other mines at Castilio are looking up also." Meantime it was satisfactory to be able to state that the profit on the working in July and August was, in the former, 327*l.* 9s., and in the latter 288*l.* 11s. 10d. The traffic receipts show the amount earned on the six months ending June 30 to be 5708*l.* 18s. 5d.

The Chairman, in moving the adoption of the report and accounts, alluded to the fact that although their receipts were not yet what could have been wished, yet they evinced a steady progress, and that from the advices received by the last mail they had every reason to expect they would still further materially improve. As the traffic of their line depended to a very great extent upon the transit of the vast mineral resources of the country, it could not fail to be satisfactory to find that the produce of the Castillo copper mines was giving continual traffic to the line, and they expected a considerable accession of traffic from the silver mines, as some of the principal presented most marked features of improvement. He thought their prospects were of a very favourable character.

Mr. Wilkinson seconded the motion for the adoption of the report and accounts.

Mr. Poynder drew attention to an item in the balance-sheet for "road repairs." He wanted to know whether the permanent way was or was not equal to the traffic that was likely to be conveyed along its line?

Mr. E. Woods (the consulting engineer) explained that the road was originally constructed for mule traffic, but after some experience it was found necessary, from the great expense they incurred, to displace the mules by the employment of locomotive engines. Accordingly two locomotives were sent out, which necessitated the strengthening of the permanent way. That had, of course, increased the expenses very considerably, but as the traffic increased the ratio of expenses, compared with the receipts, would be materially lessened. The company had also up to the present time been put to a considerable additional expense from not having proper workshops of their own; but the directors had decided upon sending out—indeed, they had already sent out—a steam-engine, a quantity of tools, and all other appurtenances necessary for the opening of a proper repairing-shop of their own, by which a material saving would be effected.

The Chairman said up to the present time the locomotives had performed their duties very satisfactorily, but the directors thought it might be necessary to have a third locomotive, to be kept in reserve in case of an accident to either of the locomotives that were regularly engaged in the transmission of the traffic.

Mr. E. Woods quite agreed with the Chairman that it would be expedient to have a third engine, to be kept in reserve. Two engines were quite sufficient to do the work. The quantity of mineral each engine conveyed per journey was between 50 and 60 tons, in addition to which there was a comparatively limited passenger traffic.

Mr. Poynder enquired if the existing locomotives would be equal to the expected increased traffic?—Mr. Wheelwright replied that the two locomotives were quite equal to at least double the present amount of traffic.

The Chairman said the measure recently passed by the Chili Government granting a general amnesty would indirectly act very favourably towards their company, because no doubt the effect produced would be the return of large numbers of the labouring population, the absence of whom had caused the mineral resources of the district to be but imperfectly developed, and the general passenger traffic of the country diminished.

Mr. Wheelwright said the main traffic of the line was the transit of mineral. They had had considerable passenger traffic, but, unfortunately for them, the commerce of the country met a serious check by the crisis, through which alone their passenger traffic had fallen off, but there could be no doubt the effect of the enactment recently passed by the Chili Government would be the gradual increase of their passenger traffic.

The Chairman said the advices received by every mail proved that the general affairs of Chili were steadily improving, and there was no doubt the general position of the affairs of the company must continue to improve in the same ratio as those of the country.

Mr. Poynder enquired if the present rolling stock was nearly worked up to its fullest extent?—Mr. Woods replied that all they required, and that only in case of accident, was a third locomotive, the present rolling stock being more than equal to the requirements of the traffic.

Mr. Wheelwright said their misfortune was that a few days after the gold line was finished the revolution took place, which stripped the whole province of labourers. But the general amnesty would enable the miners, who had fled to the other side of the mountains, to come back and resume their avocations. In the meantime the traffic of the province was being developed—in fact, the whole of the the railroads constructed in that neighbourhood had made their own traffic by offering facilities for the development of the resources of the districts intersected. The Castillo Mines were now producing 4000 quintals per month. In consequence of the late depressed price of ore those mines had not been vigorously prosecuted, but now that a more encouraging aspect of affairs was presented those mines would be more energetically developed, when they would be able to produce 12,000 quintals per month. The other mines in the vicinity were also at work. The produce from the silver mines had for some time fallen off, but the last accounts showed there was good reason to hope that the silver mines would soon resume their former productiveness, which would also tend to considerably increase their traffic. He might also mention one of the chief miners, who had always employed mules for the conveyance of mineral and materials, had given notice of his intention to henceforth employ the company's line—that alone would increase their traffic by about 6000 quintals per month. He looked forward to a very considerable and satisfactory traffic. Had the first extension from Copiapo been built at the time they constructed theirs, they would have met with the same result, instead of which that line had paid of itself 16 per cent. for the last six or seven years, besides bonuses. It formed part of the same line as theirs, leading to the great mines of Chanarcillo.

The Chairman said the old line paid nothing for the first two years, but in the six following it paid back the whole of the capital.

Mr. Wheelwright considered that the district was one of the most remarkable in the world, both for copper, silver, and gold. The gold district was, perhaps, the richest in the world, containing probably more gold than any other country. Several scientific gentlemen had recently visited the district, who stated that they never saw anything to equal it in the world. For his own part, he could not see any reason why they should not secure on their line the same results as those which the old line had produced. He thought he might confidently say that next year they would pay a fair dividend.

Mr. Hankey said he had received a letter from some of his friends in South Americ a,

stating that there was a large field for the profitable employment of capital for years to come in the development of the mineral resources of the country.

The report and accounts were then received and adopted, and a unanimous vote of thanks to the Chairman and directors terminated the proceedings.

AFRICAN STEAM SHIP COMPANY.

The ordinary half-yearly meeting of proprietors was held at the company's offices, Mincing-lane, on Wednesday,—Mr. P. D. HADOW in the chair.

Mr. D. CAMPBELL (the secretary) having read the advertisement convening the meeting, submitted the report of the directors, which stated that in preparing the accounts they had made the usual reserve of 7½ per cent. per annum for depreciation; they had extinguished the loss on the sale of the *Gambia*, discharged the cost of the refit of the *Retriever*, augmented the boiler fund, and written off a portion of the loss sustained by the sale of the *Hope*. The amount brought down to the credit of revenue account was 762*l*. 16s. 9d., out of which they recommended the payment of the usual dividend of 7s. per share, free of income tax, for the half-year ending Oct. 31, 1861. This payment, which was at the rate of 7 per cent. per annum on the company's capital, would absorb 481*6l*. The directors have much pleasure in reporting that during the past six months the mail service had been performed in a most satisfactory manner, the ships had kept their contract time without a single exception, and they were all in a thorough state of repair and efficiency. The *Retriever* would be dispatched to the coast in a few weeks to resume the intercolonial service. The utmost care had been exercised in her refit, and the directors had every reason to believe she would perform her work satisfactorily. The *Macgregor Laird*, at present building in the Clyde, would be launched early in December. This vessel was being most carefully constructed under the inspection of one of the company's officers, and as all the modern improvements would be applied to her, the directors expected she would form a most valuable addition to the fleet.

The CHAIRMAN, in moving the adoption of the report and accounts, stated that although the report was not remarkable for prolixity, yet he thought it contained materials which would induce proprietors to give it a favourable reception. The period which had intervened since they last met had not been marked by any incident of importance; nevertheless, the result was more satisfactory than that of any previous half-year. The voyages of their ships had been performed with regularity, and free from any casualty, while the nett receipts were greater than in any former corresponding period. The consequence was that after payment of dividend, and making provision for every liability, they were enabled to write off the loss arising upon ships previously sold a larger sum than heretofore; and it would be his duty to submit presently a special resolution authorising such an appropriation of a portion of the balance. Although they could not expect that every half-year would be so fortunate as the last as regarded freedom from those casualties to which every ocean navigation company was liable, he saw no reason to doubt that with the exercise of the same vigilant superintendence they would continue as prosperous as they had been during the past few years, previous to which they were in a much lower position, and paid only a very small dividend. When, however, they got the contract enlarged they enabled to perform the service with more efficiency, and with greater profit. The *Macgregor Laird*, alluded to in the report as building, was launched on Tuesday in the Clyde. From the improvements introduced in the machinery of that vessel it was expected that her consumption of coal would be 30 per cent. less than that of other ships of the same tonnage and power, which he need not say was a matter of great importance, considering that the item of coal on the African coast stood in their accounts at 3*l*. a ton (Hear, hear). The *Macgregor Laird* would be ready for sea in about six weeks, and would probably take out the Jan. or Feb. mails.—Mr. DUER seconded the motion.

In reply to a question from Mr. DE SALIS,

The SECRETARY stated that the *Macgregor Laird* was of 200-horse power; her length was 240 ft.; her draught 15 to 16 ft.; her consumption of coals 13 to 15 tons a day; leaving 650 tons for cargo. And in reply to Mr. A. Beattie, he added that the object of keeping so large a quantity of coal in stock was to equalise the price. As against the ships the coal was charged equally at 3*l*. a ton.

The resolution being unanimously adopted, the usual dividend of 7s. per share, free of income tax, for the half-year ending Oct. 31, was declared.

The CHAIRMAN then proposed a special resolution that 2000*l*. towards the further liquidation of the loss arising on the sale of the *Hope*, be transferred from the revenue to the ships loss account.

A SHAREHOLDER doubted the expediency of reducing the balance by writing off the 2000*l*. referred to, and suggested the possibility of the present being a less prosperous half-year than the last, and of a difficulty in consequence of maintaining the same rate of dividend unless they had a balance to draw upon. Was it wise, with a war threatening, which must affect the interests of all shipping companies, to absorb so much of the balance, which at a future time they might want for the purpose of keeping up the dividend?

The CHAIRMAN admitted the possibility, but not the probability, of their not being in a position to pay a dividend in the current half-year, and observed that all they proposed to write off was the 2000*l*. which they were better this year than the last. They did not reduce the balance carried over beyond what it was at the commencement of the period, while on the other hand they wrote off 1000*l*. to the boiler account, and 1200*l*. towards the loss of the *Gambia*. If they should be pushed to make up the dividend on the next occasion it would only be necessary to abstain from writing off sums on these accounts, and there would be sufficient.

Another PROPRIETOR consider it advisable to write off these charges as soon as possible.

The resolution was then put and carried unanimously, when the proceedings terminated with votes of thanks to the Chairman, directors, secretary, and the officers of the company.

TRUTH'S ECHOES; OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has been very active during the week, and the transactions have been both large and numerous. Although some shares have had more than ordinary attention, still there has been a more uniform enquiry than for some time past. The dividends declared from British mines during the month of November is given at 24,463*l*. 15s. Wales has contributed 6312*l*. 10s.; Cornwall and Devon Consols the remainder. The chief transactions have been in SETON, EAST CARN BREA, EAST CARADON, WEST CARADON, and SOUTH CARADON, in most of which there have been several heavy transactions. WHEAL GRYLLS, EDWARD, ARTHUR, TRELAWNY, LUDCOTT, MARY ANN, and other favourite shares have been done at an advance. Among the several advices of improvements received this morning may be noticed that from WHEAL EDWARD, where, in driving the 60 cross-cut north, they have intersected a very flattering-looking lode, and have gone through it 5 feet, with no north wall.

MARKE VALLEY continues to look remarkably well, the several productive points returning the usual quantities of ore, with increasing reserves. The next sampling is computed at full 400 tons.

At WEST SHARP TOR the water is still in the bottom levels, which precludes the cutting through the lode in the 160 fm. level. At the meeting, held on Wednesday, a call of 3*l*. per share was made.

At EAST CARADON the caunter lode continues without any change, the 50 east being worth 90*l*. per fm.; the 60 east, 40*l*., and the rise about the same: the 60 end is not so far east by 35 fms. as the 50, consequently there is a fine course of ore to pass through. They have weighed off the parcel last sold, and from over-weight will increase that sale to upwards of 2220*l*. for the month. The next sampling is computed at 345 tons. Since writing the foregoing, letters have been received stating that the 50 east has improved, and is now worth above 100*l*. per fm., and the 60 east upwards of 50*l*. per fm. Fawcett's lode, in the 50 east, is worth 10*l*. per fm.

WHEAL ARTHUR continues to open out remarkably well. The middle lode is found highly productive at the 50, the western end yielding 3 tons, and the eastern 2½ tons per fathom; the backs are producing fair quantities of ore; and the old lode is equally productive. A few days will open the middle lode 13 fms. deeper; and as a good orey lode has gone down from the 50, a course of ore is expected at that point.

KELLY BRAY is reported to be improving in the eastern ground. The lode in the 75 is worth upwards of 20*l*. per fathom, and is stated to be whole to the surface; from the trials made in the back, and found of the same value, there is every reason to believe that the lode will continue productive the greater portion of that distance.

SORTRIDGE CONSOLS is stated to hold out much promise; and although no lode has been taken down for the past fortnight, there is no reason to anticipate any failure. They sampled last Friday 130 tons of copper ore, which is expected to realise, according to the present standard, full 1200*l*.

GREAT CHINNIS shows good indications of improvement in several important places, where the lode is unusually large, especially in the 100 west, which is further proved by the winze in the same level in a very encouraging lode.

At WEST PAR an improvement is reported in the 65, where they are opening a long run of tin ground, fair stamps' work.

ST. DAY UNITED is reported to have improved in the winze in the bottom of the 114, near Wheal Unity. They sold on Saturday 40 tons of tin. At the meeting, held on Monday, the statement of accounts showed a credit balance of 476*l*. 17s. 5d.

At EAST CARN BREA, the lode in the 26 is worth 20*l*. per fathom, and improving. Although the lode in the 50 cross-cut is poor at present, they will soon have an improvement, as the lode in the winze in the bottom of the 40 is 8 fms. deep, and worth 30*l*. per fathom, and will come down about 6 fms. west of the cross-cut.

At GRAMBLER AND ST. AUBYN they have intersected a new lode in the 40 cross-cut, which is looking well, and considered a valuable improvement.

At TRUMPET UNITED the lode in the 15 west continues productive for tin, and estimated worth 15*l*. per fm.

WHEAL DAMSEL is stated to look very encouraging, as far as the operations have been carried in clearing. The new lode recently intersected is looking very much for an early improvement. There is a good lode of copper ore in the winze at bottom of the deep adit.

PANT-Y-BUARTH is very much improved; the lode in the 44 is worth upwards of 2½ tons of lead per fathom, and looking to further improve. The mine is likely to become one of the most important in the district. JAMES LANE.

From Mr. EDWARD COOKE:—A slight check has been given to business by the pending American question, still a large amount of business has been transacted in several of our most prominent mines—SOUTH CARADON, TINCROFT, DEVON GREAT CONSOLS, WEST CARADON, MARKE VALLEY, EAST CARADON, HERODSFOOT, WHEAL HEARLE, WHEAL MOYLE, WHEAL SETON, NORTH MINERA, WHEAL GRYLLS, and others. It will thus be seen that the Caradon district is well represented. It must be apparent to all who study the progress of our home mines that Liskeard is likely to become the seat of the most important mining district in England. Already it may be said to possess the richest mines in Cornwall, in East Caradon, South Caradon, Marke Valley, and West Caradon, among copper mines; while it is fairly represented in that for lead by Herodsfoot, Wheal Mary Ann, Ludcott, and Trelawny. All these are mines that have already paid good dividends, and likely to continue them for many years to come. Other mines in the same locality will as certainly become equally rich when further developed—GLASGOW CONSOLIDATED, CARADON CONSOLS, SOUTH HERODSFOOT, NEW SOUTH CARADON, WHEAL NORRIS, SOUTH CARADON WHEAL HOOPER, EAST WHEAL AGAR, &c. The whole of these mines are selling at such prices as cannot fail to well repay any amount of money expended in them. SOUTH and WEST CARADON became rich at a comparatively shallow depth; but owing to the geographical position of the adjoining mines, and the dip of the lodes, a greater depth will have to be attained in them before they can be expected to prove productive. A large amount of business has been done in WHEAL GRYLLS; and notwithstanding the great advance that has recently taken place having induced the original holders to realise their profits, the price remains very firm and shares scarce. Upon a moderate calculation, 500*l*. per month as profits is expected to be realised, which would be equal to about 6*l*. per share per annum. At the present price, this would be equal to 35 per cent., therefore, allowing a considerable discount on the estimate, the shares are very cheap. Another dividend of 5s. per share was declared on Thursday in TINCROFT. This has been anticipated in my former remarks; and I have every reason to believe that 25s. or 30s. per share will be paid on these shares in 1862. SETON shares have had the usual fluctuations, owing to the large speculative business that is generally done in them. EAST CARADON shares have advanced to 27½, buyers. In anticipation of finding the lode rich at the 70, of which there is not much doubt, the shares are likely to advance. The cutting of the south lode at WHEAL MOYLE is an important feature to the shareholders, as there will now be two lodes to work on. I am informed that the year 1862 will be commenced with a monthly profit of 400*l*. to 500*l*. It must be borne in mind that the most interesting point in the mine—the junction of the lodes in the 30 fm. level—has not yet been reached, still the mine is now making a good profit, and the question of any further calls appears to me to be improbable. Having identified myself with this concern from its commencement by the present company, it affords me very great pleasure to witness its steady progress towards a profitable future. In the same locality, and adjoining the Great Consolidated Mines, is EAST WHEAL DAMSEL, from which great things are expected. One of the Consols lodes is daily expected to be met with, and there is every probability of its being found rich. Should this prove to be the case, the shares, from being at a comparatively low figure now, will attain a high price. A map showing the mine, with its relative position to the rich mines of the district, has just been made by a talented correspondent to the Journal, by an actual survey both underground and at surface, which may be had gratis at my office. At NORTH MINERA the frost has impeded the dressing operations, but the mine is progressing well. NORTH DOWNS is reported to be looking well. A dividend of 5s. will be declared this month, and a considerable sum added to the balance, and the shares are standing at 5¼ to 5⅜. They are cheap as an investment.

PRESENT STATE OF THE MANUFACTURE OF RAILS.

RECENT IMPROVEMENTS ON FOREIGN RAILWAYS.

Being in the neighbourhood of the Phœnix Works, I determined to visit them, to obtain, if possible, some information respecting their methods of manufacture. It was truly a painful sight to see these fine works lying comparatively idle, only six or seven out of 78 puddling and reheating furnaces being in blast, though I was informed that it was proposed shortly to blow in 14 additional ones, probably on account of a large order I understood they were filling for the Lombard-Venetian line. Of the four blast-furnaces, only one was working. They were all built in the same manner, the masonry being very light, with a considerable taper from the bottom to the top, and entirely cased in sheet-iron, strengthened with ribs of the same material. The blast appeared to me to be but little compressed. The iron produced was principally grey, and run in metallic shells, which gives the pig, at the break, the appearance of being coated with white iron. The ore used was principally what is called *minerais de prairies*, a variety of the limonite or hydrated sesquioxide of iron containing considerable phosphorus. With this ore they use a large proportion of limestone, which materially improves the quality of the iron, making it harder and purer. The proportions of the charges are, eight of coke, four of mixed ore, and two of limestone, the ore and limestone being mixed together. These materials are raised to the furnace mouth by means of an endless chain with buckets, and also a water balance. They get up most of their steam from off the top of the coke ovens, these being heated by the gases which, given off by the coal itself in distilling, are led around the oven in flues. I noticed that they had a contrivance for shoving the entire load out at once, and water-pipes were brought over each oven door, for the purpose of drowning the load as it comes out. But my chief object, of course, was to investigate the subject of rails. I will take this opportunity to observe that those who know how difficult it is to obtain reliable information in an iron-works will need no apology for the comparative incompleteness of the following remarks. The packets for chair rails are formed as follows:—A single plate, 1½ in. thick, and the entire width of the packet (8 inches), is first laid down. This plate is made from a separate packet, composed of granulated iron, produced from the *minerais de prairies*, which packet is heated, hammered, and rolled. Then come two layers of granulated puddle iron, each layer composed of one broad and one narrow plate, the two laid so as to form a breaking joint. Next comes a plate of puddle-iron. Then a plate about 5 in. wide, composed of cut-off rail ends, rolled while still hot. (This operation I will speak of further on). Along side of this plate, on the same layer, and in order to complete the width of the packet, is placed another plate, 3 in. wide, made from a separate packet, formed of old material, rail buts, &c., which packet is rolled into shape without previous hammering. The succeeding layers (there are 10 in all) are of fibrous puddle-iron, except the top one, which is composed of two plates, 4 inches wide, and seven-tenths of an inch thick each, formed from a packet of old rail buts, &c., as just described. At the corners there are also placed, on their edges, two plates, 2 inches wide each, made in the same manner, their upper edges resting under the top plates. The entire rail packet thus formed is heated, very heavily hammered, reheated, and rolled. The rails made are not calculated for turning or reversing, as the lower head is much smaller than the upper—only large enough to be held well in the chair. They have two rail trains, one for chair and one for flange rails, each train consisting of three cages, one for roughing, one for finishing, and for rolling out the rail ends as they are sawn off, while still hot, into plates for the packets. To accomplish this, they pass them through six grooves. Each train is driven by a powerful horizontal cylinder engine, the crank being placed directly on the trunnion of the fly-wheel, without the intervention of spur gear. They state that they find much benefit from the preliminary hammering, in proof of which I was shown a pile of worn-out rails, made from unhammered packets, and certainly these gave evidence of very imperfect welding, the upper part of the head being in some instances entirely split off. Whether this proceeded from the want of hammering alone I am, however, unable to say. I was informed that a great economy had been brought about in this department within a few years, rails now costing them to make 10 thalers, or about 30s. less per 1000 lbs. (Prussian) than they did three years ago. The quality of the rails is unimpeachable. They made some time ago a series of experiments on the heads of their rails, to see how they compared with cast-steel. These experiments were made with an exceedingly beautiful and perfect drilling machine, 200 turns being given, first on the rail-head, and then on a bar of cast-steel. The results gave an average of 70 per cent. for the rails as compared to cast-steel, but it is evident that this was too low, for, always commencing on the rail, the drilling-bit, which was not re-sharpened, became dull before being applied to the steel. The fair average would probably be 70 to 80 per cent. Some rails, I was informed, went as high as 90 per cent. They were making for their rails a new description of fish plate, which forms at the same time a species of chair, which must greatly add to the solidity of the join, but which is exceedingly difficult to roll.

I also visited the fine establishment of Messrs. Jacobi, Hanniel, Huyssen, and Co., at Oberhausen. There are here four furnaces in blast, of which three were running white and one grey iron. There is a fifth furnace in construction, nearly completed. The masonry of these furnaces is exceedingly massive, they being 44 feet wide at the base and 38 feet at the top, total height 55 feet. The interior form is square. Each furnace is blow with two tuyere pipes, with 3½ to 4 in. nozzles, and a pressure of 3½ in. of mercury. The blast is heated to 100 centigrade degrees, but it is intended to heat that of the new one up to 250° centigrade. The furnaces are loaded with a mixture containing many different kinds of ore—blackband, clayband, Nassau ore (a red ore, very siliceous), &c. At the end of about every three years, I was informed, they have to blow out and renew or repair the interior masonry. This rapid degradation is owing to the corrosive nature of some of the ores used, particularly that of Nassau, owing to its silica, and the high temperature required to fuse it, from its hard, compact character. The combustible used is coke, and the blowing-engine boilers are heated by the gas which, generated in the coke ovens, is led underground to them. The boilers are constructed very similarly to those used with ordinary fuel. They run three times a day, each running producing from 13,000 to 14,000 Prussian lbs. of iron. The white iron is run into cast-iron shells, but the grey pigs are formed in the sand. The cinder as it flows out is received into cast-iron moulds, placed on small wagons; these moulds are raised off by means of a small crane, leaving the block of cinder on the wagon, in the shape of a truncated pyramid of four lateral faces. This shape seems to be given it merely to facilitate its transport off the premises, for the cinder is not utilised in any manner. Hydraulic balances are used to raise charges, &c. The information I collected here relative to rails is exceedingly meagre. The packets were about 10 in. high by 9 in. wide for flange rails (5 in high, with a 4-in. flange), a single plate of apparently once reheated iron, and two upright corner-pieces, forming the flange, and four corner-pieces on the top of the packet; all the rest seemed to be puddle iron. The packet, when withdrawn from the welding-furnace, is conveyed on a small truck to the steam-hammer, and thoroughly beaten, first flatwise, then on the edges, and so on alternately, finishing on the flat. It is then taken in the same way to the reheating furnace, whence it is conveyed to the rolls, going six times through the roughers, and five times though the finishers, first with flange up, then with the flange turned sideways alternately to the right and left. Both ends are sawn hot. They formerly rolled the packets immediately without previously hammering, but found that they produced a better, stronger, and handsomer rail by treating them in the manner just described. The test the rails must stand is, to be placed on two supports a yard apart, and undergo an hydraulic pressure that bends them 1½ in. without showing any crack or split when they come up. I was informed that they would easily stand a much greater pressure.

The following are some details relative to the rails used on some of the German lines:—

COELN MINDENER LINE.—Rails must be 18 Rhenish feet long. Test: Resting freely in its natural position on supports 3 feet apart, must bend 3 in. without any sort of rupture; and must, also, under similar circumstances, support 300 zoll centners* placed in the middle for several hours without permanent bend. The packets from which these rails are formed must be composed of iron, entirely free from cinder; they must be brought to a welding heat, and passed under a 60 zoll centner hammer till reduced to the dimensions of 8 × 12 zoll, thence taken to the reheating furnace, brought again to the welding heat, and rolled.

It is admitted that flange rails should have hard heads, but that for chair rails the first condition is homogeneity. On the Rhenish road they experienced a difficulty from the imperfect welding of the different natures of iron employed. This defect did not manifest itself the first year, but the third or fourth; the corners broke off vertically, or else the whole head split off for a considerable length.

WESTPHALIAN LINE.—A separate packet is destined to form the top piece of the entire rail packet. It is composed of eight layers, each layer being ¾ zoll thick. The top and bottom of this packet are formed of single plates, the entire width of the packet, composed of once-reheated iron; the interior layers are of two plates, each of puddle-iron; all the iron in this packet is granulated. It is rolled flatwise, without previous hammering, down to the thickness of two zoll. The bottom plate is entirely of fibrous iron, the outside plates being rolled from fibrous rail ends; it is rolled edgewise down to a thickness of 1 zoll. The rail packet is then formed, only the corner pieces are omitted. This packet is heated and hammered down to 7 zoll square, then re-heated and rolled into rails 5 zoll high. It is impossible to tell how these rails will stand, as they have been made in this manner since 1858 only. All choice of materials and method was left to the discretion of the manufacturer, with the stipulations only that the packet should be hammered before rolling, and a three years' guarantee given.

I will conclude these observations by the following memoranda, taken by me at the Societé Anonyme de Castelenau, near Charleroi, Belgium. I estimated the dimensions of the packets to be 48″×8″×6″, and I was informed that they would weigh 300 kilos. If this be true, my estimate is probably a little under the mark, for the dimensions I have stated would scarcely give a weight of 660 lbs. The rails they were rolling from these packets were, when finished, 6·16 metres and 6·20 metres long (20 ft. 2½ in. nearly, and 20 ft. 4 in.), and weigh, the 6·20 metre ones, 230 kilos., or 506 lbs. They (the packets) are composed entirely of puddle iron, granulated for the head, and hard for the rib, with the exception of a single plate the entire width of the packet of once-reheated iron, for the flange. The packet is heated a good hour, then rolled, without previous hammering, six times in the roughing and six times in the finishing rolls. In the roughing rolls the packet goes through the first groove on the flat, then edgewise in the two succeeding ones, receiving in the latter of these two the commencement of the rail form; then flatwise; then, lastly, on the edge. The first groove of the finishers takes the rail in an upright position; all the rest are on the side. The test to which the rails are subjected is, that resting on supports 1 metre apart, they shall bear the shock of a 300 kilogrammes weight, falling through 250 metres. These rails, I believe, were being made for Spain. E. SHERMAN GOULD, C.E.

* The zoll centner is a weight of 100 zoll pfund, and the zoll pfund being equal to exactly 500 grammes, French measure, the zoll centner equals 50 kilos., or 110 English pounds and a fraction. The zoll or inch, which will shortly be mentioned, is from the source whence I draw my information, an engineering journal published in Berlin, probably the Rhenish inch, of which 12 make the Rhenish foot. The Rhenish foot equals 313 millimetres and a fraction; the zoll is 26 millimetres, or 1·1 in. English.—E. S. G.

TARANAKI STEEL AND IRON COMPANY.—A petition for an order was made before Mr. Commissioner Holroyd, on Saturday, for winding-up. The petitioners were—Augustus Van Gheluwe, 7, Catherine-court, Tower Hill, merchant; F. Holdway, 1, Brunswick-place, Shepherd's Bush, coachmaker; B. Studer, 9, Bruton-street, Berkeley-square, merchant. The petition alleged that the company was formed in March, 1860, for the purpose of carrying into effect an agreement to dig for iron-sand, &c., in New Zealand, and to convert the same into marketable iron or steel for exportation, or to export for sale the said iron-sand, &c., in its natural state. The petitioner Gheluwe held 1000 shares, Holdway held a similar, and Studer held 100 shares. The petitioners further alleged that three-fourths of the capital had been lost. Mr. Bagley appeared in support of the petition; Mr. Roxburgh opposed it. It appeared that the position of the company in reference to the alleged loss of capital had not been clearly ascertained. A call had been made by the company, but it turned out to be invalid, and the directors were now desirous of again addressing the shareholders. An adjournment was ordered.

TURN-OUT OF COLLIERS AT ASHTON.—In consequence of the expiration of a notice to reduce colliers' wages in Ashton and other places adjacent 2d. in the shilling, a general turn-out has taken place in Ashton and Bredbury, and at several pits in Denton. A turn-out has also been contemplated at Astley's Deep Pit, Dukinfield, and several men up to Tuesday had left work. In consequence of information that many colliers were about to visit Astley's Deep Pit on Tuesday morning, when the men working there were going to their work, the precaution was taken to have a number of police in readiness, to prevent intimidation or a breach of the peace. About 100 men came from Ashton and other places, and endeavoured to prevail on the men not to go work, and they succeeded with several. No violence or intimidation was used.—*Manchester Guardian*.

MARVELLOUS DESCENT DOWN A COAL SHAFT.—The other day a lad named Hazard, whilst emptying a barrel of water at the Eskett Iron Ore Company's pit, at Frizington, slipped, fell 170 feet down the shaft, head foremost, but, strange to say, alighted without sustaining any injury. He owed his escape to the fact that there was a depth of 10 ft. of water at the bottom of the pit. His head was jammed in the mud at the bottom of the pit, but he had presence of mind enough to press himself free; he then floated on the water, and was happily recovered, not much worse for his perilous descent.

ACCIDENTS IN BLASTING.—At Stray Park Mine, John Carlean and John Champion were injured, the former it is feared mortally, by the explosion of a hole while tamping.——At South Caradon, Isaac Walters and his comrade were injured through the explosion of a charge whilst picking out a hole that had missed fire.

From British Columbia, the late advices regarding the yield of gold are extremely favourable. New discoveries of great richness had been made, and in some localities the miners were realising larger sums than have ever been obtained by individuals in California or Australia. The instances of persons gaining steadily from 10*l*. to 30*l*. a-day were numerous. Two labouring men had just arrived at Victoria, Vancouver's Island, with 1400*l*., the produce of only a few weeks. Success was so general, that it is said "we hear of no dissatisfied miners." A large immigration was consequently expected, but the great drawback consisted in the absence of steam communication between San Francisco and Victoria.

THE ST. JUST TIN MINES.—We are much pleased to learn that the applications for shares in this company are numerous, more especially from the mining counties. Great efforts have been made for some years past to obtain a grant of this sett, and we are very glad success has attended those efforts. It is an old mine that most of the leading miners in the county entertain a high opinion of.

TREGULLOW CONSOLS MINE, the sale of which is advertised in another column, is worthy the notice of mining and other gentlemen, being situated in the best mining district of Cornwall.

LEEDS, DEC. 5.—In Mining Shares rather more animation has been manifested, and a few shares have changed hands at low prices; though this, with every other description of stock, partakes to some extent of the depression which now prevails. —Craven Moor, 2s. 6d. to 3s. 6d.; Cornubia, 16s. to 20s.; Hebden Moor, 20s. to 25s.; Merryfield, 5s. to 5s. 6d.; North Hallenbeagle, 12s. to 13s.; ditto, fully paid up, 15s. to 20s.; Nidderdale, par to prem.; North Jane, 39s. to 40s.; Wensleydale, 7s. 6d. to 8s. 6d.; West Buston Gill, 100*l*. to 110*l*.; Yorkshire, 8s. to 10s.

CONISTON OUT-MOOR MINE, YORKSHIRE.—The prospects and produce of this mine continue to improve; they are now raising considerable quantities of lead ore, and have already obtained what will produce upwards of 30 tons of pig-lead, and it is expected it will be increased to 50 tons by the end of the year. The lead is got from a rise in the level, which is driven from the bottom of the 45 fm. shaft, the ore in which is from 8 to 18 inches wide, nearly solid.

MERRYFIELD MINING COMPANY.—An improvement has taken place in this mine, and an increased quantity of ore is being raised, with a prospect of its continuing; an additional number of miners have lately been set to work at metal pitches, and it is contemplated to increase the number.—JOHN GLEDHILL AND CO.

RAILWAY CALLS.—The amount falling due in Dec. (all for England) is 625,361*l*.—making the total called during the present year 13,545,154*l*.

WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR LETTERS PATENT.—T. ELLIS, Swindon: Rails for permanent ways.—S. TONKS, West Bromwich, Stafford, and J. BROOKS, West Bromwich: Steam-boiler furnaces.—R. D. CHATTERTON, Cobourg, Canada: Safety-buffer or apparatus to be used in railway trains to prevent accidents from collisions.—G. RALSTON, Tokenhouse-yard, London: Preparing and applying a certain material on the hulls of iron or wooden ships, or on the surfaces of materials for building the same, also for preventing oxidation and tubercies in iron water-pipes.—JAMES BROWN, Stratford: Fire bars and furnaces.—FIRTH and RIDLEY, Leeds: Apparatus and machinery for working coal and other mines.—DOMSTHORPE, FIRTH, and RIDLEY, Leeds: An invention for the same purpose.—JOHN STANDFIELD, Stratford: Regulating and indicating the speed of steam-engines.—T. DUMARCHEY, Strasbourg: Ore crushing machinery.—GEORGE RYDILL, Dewsbury: Smoke consumers and ventilators.—WHIBLEY and LUMLEY, Old Brompton: Ventilators.—J. BONNE, Paris: Furnaces for working iron ore.—P. SPENCE, Newton Heath, Manchester: Treatment of ores for sulphuric acid, and treating ores for separating metals therefrom.

THE IRON AGE.—At the Polytechnic Institution, on Monday, Professor J. H. Pepper, F.C.S., commenced two new lectures—"The Iron Age" and "The Science of the Armstrong, Whitworth, and other Rifled Guns." The lectures, being particularly appropriate to the present state of political affairs, were very well received by a large audience.

THE LLANMORLAIS COLLIERY COMPANY (LIMITED).

Capital £20,000, in 10,000 shares of £2 each.
10s. per share to be paid on application, and 10s. on allotment.
The remainder of the capital not to be called up without the consent of a general meeting of shareholders, and then only by instalments of 5s. per share, and at intervals of three months.

DIRECTORS.

A. C. HOWDEN, Esq., Boundary-road, St. John's-wood.
Col. R. Y. BUSH, 55, York-terrace, Regent's-park, N.W.
Capt. J. D. MACQUEEN, Whitehall-yard, S.W.
THOS. P. AUSTIN, Esq., 35, Mark-lane, E.C.
S. W. HOOPER, Esq., Fleet-street, E.C.
W. C. KIRKHAM, Esq., 15, St. Anne's-square, Manchester.
(With power to add to their number.)

BANKERS—The City Bank, Threadneedle-street, London.
SOLICITORS—Messrs. Hancock, Sharp, and Hales, Tokenhouse-yard.
BROKER—F. Everett, Esq., 17, Royal Exchange.
OFFICIAL AUDITOR—F. Maynard, Esq., Accountant, 19, Bread-street, Cheapside.
(Another to be chosen by the shareholders.)
SECRETARY—Mr. Charles Warwick.

OFFICES,—25, BUCKLERSBURY, LONDON, E.C.

The Llanmorlais Colliery is situated in the parish of Llanrhidian, in the Gower district, in the county of Glamorgan, about half a mile from the Burry River, and nearly opposite Llanelly, South Wales.

The mineral rights are about 300 acres in extent, and contain ten workable seams, of the aggregate thickness of 42 ft. 11 in., varying from 4 to 7 ft. each, of highly bituminous coal, and are held on various grants for long periods, subject to an average royalty of 9d. per ton on the coal raised.

The coal of this district is admitted to be of the very best quality for house, gas, smiths, engine, and manufacturing purposes.

A shaft has already been sunk by the present proprietors to the depth of about 200 ft., intersecting two of the seams of coal, one of 6 ft. and the other 4 ft. 9 in. in thickness, the latter having been won since Mr. Rosser made his inspection; these extend about three-quarters of a mile in width, all underlying north in a slanting direction, and are workable to the depth of 700 fms. The present pit is of sufficient size for an outlet of the workings for all the seams, and by making a drift south from the bottom of the shaft for about 200 fms. it would intersect the whole, and lay open workable coal to the extent of 300 to 400 tons per day; every one of the ten seams have been opened from the crop on the surface to a depth of about 20 to 30 yards of old workings, proving beyond a doubt their existence within the before-mentioned limits.

From the two seams now laid open 60 to 70 tons of coal per day can be easily raised, and as soon as the necessary plant and road are completed, which will not occupy more than from two to three months, shipments to that extent can be made. Orders have already been received by the present proprietors from France and Ireland for large quantities; and it is well known that the demand for this description of coal far exceeds the present supply.

The total cost of the coal placed on board the vessels will not exceed 4s. 6d. to 5s. per ton, which is confirmed by the report of Mr. Rosser, the well-known mineral surveyor of Llanelly; the selling price of the same being on an average 7s. 6d., a clear profit of 2s. 6d. per ton remains, which upon a working of only 60 tons a day will yield a profit of 17½ per cent. on the capital now proposed to be paid up; but as the workings will daily increase, 100 tons a day may be shortly relied upon, and the profits increased accordingly.

During the last Session of Parliament an Act was passed for making a railway, connecting this and other important colliery properties with the new floating docks at Swansea; this line is expected to be completed in less than two years, which must add immense value to the Llanmorlais property; and as it is only intended to call up £1 per share for the present, ample provision is made by the reserved capital to enable this company to construct a branch in connection with the intended line, and then to increase their workings in proportion.

The colliery has been purchased of the present proprietors, who have extended a large sum of money in making the necessary discoveries, for the sum of £8500, of which £2500 only are to be paid in cash, and the remainder in paid-up shares of the company.

The directors have made arrangements that, until the shareholders shall have received a dividend of 7½ per cent. on the paid-up capital, the expenses of the London offices, including rent and remuneration to the secretary, shall be £100 per annum.

The plans and sections can be seen, and all further information be obtained by application to Mr. WARWICK, at the offices of the company, 25, Bucklersbury, London, E.C.

Application for prospectuses and shares to be made to the bankers or brokers, or at the offices of the company, as above. 57

EAST ABRAHAM MINING COMPANY, CORNWALL.

Capital £6000, in 600 shares of £10 each.

This important mining property is situate in the richest copper mining district of Cornwall, distinguished by the immense riches returned from the same lodes in the adjoining mines, exceeding the amount of £2,500,000 sterling. The lode near the boundary of Wheal Abraham, dipping into and extending through the entire length of East Abraham Mine, was worth from £100 to £150 per fathom. In the deeper working it increased in value to £200 and upwards.

East Abraham Mine is divided into 600 shares of £10. There has been £4500 expended on the mine, equal to £7 10s. per share. It is estimated that the additional capital will be ample to bring the mine into a dividend state.

Application for the remaining shares to be made to Messrs. FULLER and Co., at the offices of the company, 26, Change-alley, Cornhill. 58

WHEAL CONCORD SILVER-LEAD AND COPPER MINING COMPANY (LIMITED).

OFFICES,—No. 1, GREAT WINCHESTER STREET, LONDON, E.C.

At a meeting of the directors of this company, held at the offices, on Monday the 25th of November, 1861, it was resolved to issue the following statement to the shareholders:—

The sett acquired by this company adjoins the well-known Collacombe Mine, the lodes of which run through the company's property. Its extent is upwards of 350 fms. east and west on the run of the lodes, and 520 fms. north and south, embracing seven known promising lodes.

The shaft has already been sunk to a depth of 50 fms., numerous levels have been driven, and since the present company commenced its operations they have erected a water-wheel to work the pumps with which the mine has been drained. During the summer months, while the surface water failed, they have employed a portable engine, but during the winter season there is ample water-power for all the purposes of the mine. The shafts and levels having been completely drained a thorough examination of the ground was made by well-known mining captains, coupled with that of Capt. Luke, the local agent, from whose reports the directors felt fully justified in prosecuting the undertaking.

Operations were accordingly commenced on the 10, and a course of lead opened up, which, when assayed, yielded 80 per cent. of lead, and 15 ozs. of silver to the ton of ore. About 30 tons of lead ore have been already brought to grass by tributers, at 10s. in £1 sterling, and the men thus employed are making excellent wages; and from the appearance of the ground by sinking 10 fms. deeper, which is now being done, the ore can be stoped away in large quantities, while the company are deriving great advantages at no outlay to themselves. It is, however, proposed to extend the operations in this portion of the mine, and from a comparative small outlay the company will be able to realise very considerable and immediate profits.

It was further determined to ascertain the position of the copper lodes which were known to run through the sett, and they requested the superintending captain of the Collacombe Mine, Capt. Jas. Richards, of the Devon Great Consols, and Capt. Mitchell, the local manager of Collacombe, to give their opinion as to the prospects of discovering copper. Those gentlemen accordingly having ascertained the dip of the lodes running from the Collacombe through Wheal Concord, and making their calculations as to distances, gave it as their decided opinion that by driving the 38 fm. level 20 fms. from the engine-shaft they could not fail of cutting the main Collacombe copper lode; and as this lode dips towards the shaft, by sinking deeper the same lode could be reached by a short cross-cut; it was accordingly determined to follow the advice thus given, and on examining the 38 it was found that it had been already driven 15 fms. The remaining 5 fms. have now been nearly completed, and from the mineralised state of the ground, together with its character being precisely similar to that of Collacombe, there is little doubt but that copper ore is close at hand, and when cut will form a valuable addition to the profits to be derived from working this sett.

From the work already done, it is calculated in order to complete the machinery and efficiently develope the property that £3000 will now be ample for such a purpose, and that the advantages to be derived cannot fail to be very considerable. A 40-in. cylinder engine will be erected, so that when the surface water fails the workings shall continue, at a moderate outlay, by the use of steam.

From the statement of facts now made, the directors have great pleasure in congratulating the shareholders on the success already attained, and they have every reason to believe that, as the mine is already well opened, this undertaking will shortly prove a first-class divided mine.

Every information can be obtained by application at the offices of the company.
By order, W. S. TROTTER, Sec. 59

RAILWAYS AND MINES.

"THE MINING REVIEW,"
AND MESSRS. R. TREDINNICK AND CO.'S TRADE CIRCULAR,
STOCK and SHAREBROKERS, and DEALERS IN BRITISH MINING SHARES,
78, LOMBARD STREET, E.C.

Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the *bona fide* merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the money market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range for profit than any other public securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £15 to £25 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to railways and mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment; we will, therefore, forward, upon receipt of Post-office order for 5s., the names of six dividend and six progressive companies that will, in our opinion, well repay capitalists for money employed.

MESSRS. TREDINNICK AND CO., 79, LOMBARD STREET, LONDON, E.C. 66

INVENTORS' ALMANAC for 1862. Fourth annual issue.

Copyright. Coloured sheet. Contains Classification of British Patents for 1860, according to locality of applicant, and Analysis according to subject, prepared expressly for this almanac. Also, Chronological Table of important Inventions, Patent Officials and Statistics, Birthdays of Inventors, &c.

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Patent Registration and Copyright Agent, Patent Office, 84, Fleet-street, London.
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Now ready, price 6d.,

GOVERNMENT INSPECTION OF COAL MINES

TO WHICH IS APPENDED THE
ACT FOR THE REGULATION AND INSPECTION OF MINES,

which come into operation on January 1, 1861.
London: *Mining Journal* office, 26, Fleet-street, London, E.C.; and of all booksellers and newsmen. 61

CALEDONIAN RAILWAY COMPANY.—At an

EXTRAORDINARY GENERAL MEETING of the shareholders of the Caledonian Railway Company, held at Glasgow, 3d December, 1861,

Lieut.-Col. SALKELD in the chair,

The Secretary having read the advertisement calling the meeting, it was resolved unanimously:—

1.—That the sum of £25,000 be raised under the powers of the "Carlisle Citadel Station Act, 1861;" that the sum of £80,000 be raised under the powers of "The Caledonian Railway (Stonehouse Branch) Act, 1861;" that the sum of £160,000 be raised under the powers of "The Caledonian Railway (Cleland Extension and Branches) Act, 1861;" that the sum of £180,000 be raised under the powers of "The Caledonian Railway (Rutherglen and Coatbridge) Act, 1861;" and that the sum of £39,550 be raised under the powers of "The Caledonian and Symington, Biggar, and Broughton Railways Amalgamation Act, 1861;" and that these several sums, amounting together to £484,550, be raised by the creation of 19,382 half shares, of £25 each, to be called "Caledonian Railway Four and a Half per Cent. Preference Half Shares C," bearing a dividend at the rate of Four and a Half per cent. per annum in perpetuity, preferable out of the profits of each year, commencing on the first day of February, in priority to the Ordinary Shares of the company.

2.—That the first instalment shall be £2 10s. per share upon the said Preference Half Shares, and the same shall be payable on the 27th day of December next, and the remaining instalments shall be payable at such periods as may be fixed by the directors, under the provisions of the Caledonian Railway Act, 1845.

3.—That the directors be, and they are hereby, empowered to allocate the said shares to those holders of stock and shares who may apply for the same, and agree to pay the first and remaining instalments as the same respectively fall due—whom failing, to such other parties as may make application and come under a like obligation.

4.—That so soon as the said several sums of £25,000, £80,000, £160,000, and £180,000 shall have been subscribed for, and one-half thereof shall have been paid up, the directors be, and they are hereby, authorised in addition to the amount which they are or may be authorised to borrow by any other Act of Parliament, from time to time to borrow on mortgage; and if paid off, again to borrow any sum or sums of money not exceeding in the whole the following, namely—In terms of the "Carlisle Citadel Station Act 1861," £8300; in terms of "The Caledonian Railway (Stonehouse Branch) Act, 1861," £26,600; in terms of "The Caledonian Railway (Cleland Extension and Branches) Act, 1861," £53,300; and in terms of The Caledonian Railway (Rutherglen and Coatbridge Branches) Act, 1861," £60,000.

5.—That when and so often as the sum of £12,000, borrowed by the Symington Company, or any part of such sum, shall be paid off, the directors be, and they are hereby, authorised to re-borrow, upon mortgage, on the security of the company's undertaking, any sum or sums of money not exceeding the amount so paid off, in terms of "The Caledonian and Symington, Biggar, and Broughton Railways Amalgamation Act, 1861."

6.—That as soon as the said sum of £39,550, authorised by "The Caledonian and Symington, Biggar, and Broughton Railway Amalgamation Act, 1861;" and the sum of £45,000, authorised by "The Symington, Biggar, and Broughton Railway (Extension) Act, 1860," shall have been subscribed for, and one-half thereof shall have been paid up, the directors be, and they are hereby, authorised from time to time to borrow on mortgage, on the security of the company's undertaking, and, if paid off, again to borrow any sum or sums of money, not exceeding in the whole £24,900, in addition to the said sum of £12,000, and to the amount which they are or may be authorised to borrow by any other Act of Parliament.

THOS. SALKELD, Chairman.
ARCH GIBSON, Secretary. 67

TO MINERS.—WANTED, to go out to the south of St. Paul of Loanda, the residence of the British Commissioner and of the British Consul General, who have been there many years, in the Portuguese province of Angola, south of the line, and the healthiest place on the west coast of Africa, about 30 days passage from Europe, and having monthly steam communication with same,

ONE FIRST-CLASS intelligent MINE CAPTAIN, to direct one or more copper or other mines, and take charge of same in the occasional absence of the general superintendent, a scientific English gentleman.

ONE CAPTAIN DRESSER, competent and capable of taking charge of the dressing and washing of copper ores.

ONE MINE SMITH, knowing something of the management of circular saws, steam-engines, &c., a good practical man, capable of setting up any mining machinery.

ONE very good MINE CARPENTER, knowing all about timber sawing by circular saw, &c.

FOUR GOOD MINERS, all well used to blasting. 65

All applications, with first-class testimonials or references as to character, qualifications, intelligence, steadiness, and sobriety, to be addressed to Mr. L. A. MONTEIRO, 51, Manchester-street, Manchester-square, W., who is fully authorised to treat.

WANTED, ONE or TWO NEW or SECOND-HAND CONTRACTORS' LOCOMOTIVE ENGINES, with wheels, 4 ft. 6 in. diameter, and not less than 14 in. cylinder.—Apply, with full particulars and price, to CHARLES CLARKE, Smethwick, near Birmingham. 64

WANTED, a SECOND-HAND HORIZONTAL HIGH PRESSURE STEAM ENGINE, complete, from 18 to 25 horse power. State lowest price, and where delivered.—Apply to J. SYKES, Leek. 63

WANTED, a QUANTITY of BRIDGE or LIGHT CONTRACTORS' WROUGHT IRON RAILS, from 22 to 28 lbs. per yard, for colliery purposes.—Apply, stating price, &c., to the STONETROUGH COLLIERY COMPANY, Lawton, Cheshire. 60

MINING IN CARDIGANSHIRE—TO CAPITALISTS.—The ADVERTISER has PROCURED a LEASE, upon highly advantageous terms, of a SILVER-LEAD MINE situate in the richest mineral district of CARDIGANSHIRE, and is DESIROUS of OBTAINING the CO-OPERATION of a FEW PRIVATE CAPITALISTS efficiently to work the same. It is considered £4000 will be amply sufficient fully to develope the property, erect the requisite machinery, and bring the mines into a dividend-paying state. Unlimited water-power at hand.—Applications, addressed to "H. G.," *Mining Journal* office, 26, Fleet-street, London, E.C., will receive prompt attention. 67

FOR SALE, a VALUABLE TIN MINE in CORNWALL. Reports in detail may be seen from Captain John Edwards, late of Tywarnhaile Mine, and all other necessary information received, at the Mining Offices, 63, Cornhill, London. 68
JOHN DALE.

FOR SALE, TREGULLOW CONSOLS MINE, situate in the parish of St. Agnes, adjoining North Treskerby, North Hallenbeagle, and Scorrier Consols Mines, in one of the richest mineral districts in Cornwall. The above mine, with the tinstuff now at surface, together with the materials thereon, are to be sold to pay the labour cost, lord's rent, and other liabilities.—Apply to Capt. JOHN DALE, managing agent, mining offices, 63, Cornhill, London.
JOHN DALE, St. Stephen's, St. Austell, Cornwall. 69

BLUE HILLS COLLIERY COMPANY.—Notice is hereby given, that the SHARE LIST of this company will be CLOSED on the 10th inst. 70

UNITED MEXICAN MINING ASSOCIATION.—Notice is hereby given, that the FINAL PAYMENT of TWENTY PER CENT. on the NEW LOAN raised under the resolutions of the special general meeting of the proprietors, held on the 25th day of January, 1854, will be PAYABLE at the company's office, No. 5, Finsbury-circus, on and after Friday, the 13th day of December inst. The interest, at the rate of 5 per cent. per annum, accruing to that date will likewise be paid.

Notice is hereby further given, that the BONUS at the rate of TWENTY-FIVE PER CENT., in virtue of the 8th clause of the said resolutions, will also be PAYABLE at the same time.

The scrip issued by the association must be delivered at the office two clear days before payment is made, and will be retained and cancelled.

Hours of payment, from Eleven to Three.
By order of the Directors, W. M. BROWNE, Sec.
London, December 3, 1861. 71

TINCROFT MINING COMPANY.—Notice is hereby given, that a DIVIDEND of FIVE SHILLINGS PER SHARE (being the thirtieth) has this day been declared on the shares in this company, payable forthwith.

December 5, 1861. By order of the Board, HIRAM WILLIAMS, Sec.

N.B.—Certificates must be left at the office of the company, 1, Winchester-buildings, Old Broad-street, London, E.C., ten days, in order to be examined and marked. 74

WEST DEVON CONSOLIDATED COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that a CALL of TWO SHILLINGS AND SIXPENCE PER SHARE has this day been made on the shareholders in this company, PAYABLE at the London and Westminster Bank, Lothbury, on or before the 30th day of December inst. By order,

W. S. TROTTER, Sec.
Offices, 1, Great Winchester-street, London, E.C., December 4, 1861. 75

MR. WM. HENDERSON has REMOVED from Alderley Edge to LONDON, and from the extremely favourable results obtained by two works now in operation on Spanish and Cornish copper ores, he is now in a POSITION to FURNISH EVERY INFORMATION on the WORKING of his processes on every variety of POOR COPPER ORES. Silver, gold, cobalt, nickel, and tin ores can also be treated to great advantage.

Mr. HENDERSON is PREPARED to GRANT LICENSES to any extent, and to UNDERTAKE the PROFITABLE REDUCTION of COPPER ORES, if above 1 per cent. produce, and in sufficiently large quantities.

Parties desirous of seeing their own ores operated upon, to the extent of 50 tons, can be accommodated on reasonable terms.

All communications to be addressed to 44, Addison-road, Kensington, W. 14

MR. J. SYKES, LEEK, STAFFORDSHIRE, is in a position to DEAL SPECIALLY in RIBDEN and DALE SHARES. Reliable information.

FOR SALE:—30 Dale, 14s. 6d.; 150 Ribden, 4s. 9d.; 10 Great Retallack, 17s. 6d.; and 10 Wheal Moyle.

BUYER of Dale, Ribden, Lady Bertha, North Robert, Wheal Grenville.

Money advanced on good mining shares, at 10 per cent. per annum.

Special attention is called to the Blue Hills Colliery Company, the particulars of which will be found in the advertising columns. Nearly the whole of the shares are applied for. The shares will go to a premium of 300 per cent. in less than twelve months.
Bankers: Leek Bank. 15

BRITISH AND FOREIGN STOCK, RAILWAY, AND MINING SHARES BOUGHT AND SOLD by MESSRS. FULLER AND CO., No. 26, CHANGE ALLEY, CORNHILL, LONDON. The holders of stock are invited to communicate with them, either for the purchase or sale of such stocks.

Messrs. FULLER and Co. call especial attention to the present favourable opportunity of investing in British mines, being perfectly free from risk, and paying 15 to 20 per cent. Also, in a few progressive mines, upon which 250 to 500 per cent. profit may be realised in a few months. Telegraphic messages promptly attended to.
Bankers: Bank of England. 76

MESSRS. FULLER AND CO., 26, CHANGE ALLEY, CORNHILL, LONDON, are in a position to PURCHASE POYAIS BONDS and LAND WARRANTS, the holders of which are invited to submit any portion of £250,000 Five per Cent. Bonds, £250,000 Three per Cent. Bonds, and £500,000 Land Warrants. Cash paid on delivery. 77

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN RE EAST ALFRED CONSOLS MINE.

TO BE SOLD, pursuant to an order made in a Cause of Painter v. Oliver and another, dated the 8th day of June last, BY PUBLIC AUCTION, at the Registrar's office, Truro, on Wednesday, the 11th day of December inst., at Twelve o'clock at noon precisely,

34 (4096th) SHARES of the defendant Edward Oliver,
Of and in the said MINE. HENRY SEWELL STOKES, solicitor, Truro
(Agent for Roscoria and Davies, plaintiff's solicitors, Penzance). 78
Dated Registrar's Office, Truro, December 4, 1861.

RHONDDA, GLAMORGANSHIRE.

MR. W. H. HARRIS WILL SELL, BY AUCTION, at the New Inn, Pontypridd, on Monday, the 9th day of December next, at Three o'clock in the afternoon, subject to such conditions as shall be then produced, all that colliery known as the MERTHYR COLLIERY, situate at Abergorki, in the Rhondda Valley.

This colliery is situate on the Rhondda-fawr branch of the Taff Vale Railway, is distant from the shipping port of Cardiff 22½ miles, and is in direct communication with the narrow gauge system of the West Midland and other railways.

The coal field has an acreage of 368 acres, or nearly, held under the trustees of the Marquis of Bute, for a term of 42 years, from the 29th September, 1858, at a dead rent of £300 a year, payable half-yearly, and at the following royalties:—

Large marketable coal	8d.	per ton of 2520 lbs.
Small coal, sold or used	4d.	" "
Argillaceous ironstone	8d.	" "

Blackband, 8d. and 1s., according to the thickness, and fire-clay and building stones at fair rates.

Three levels have been opened upon the property, and, practically, the whole of the coal lies to the rise of these levels.

The vein of coal now worked has a thickness of coal of 3 ft. 6 in., of first-rate quality, and lies at an inclination of about 2 in. on the yard.

There are large and convenient blacksmiths and carpenters' shop, storehouse, office, stables, and cottage, with large enclosed yard, weigh-house, machine, screens and sheds, good siding accommodation, and everything necessary for the working of the colliery. The whole work is now in excellent condition for working and sending away a regular daily output of 200 tons.

The horses, trams, and plant of the colliery, according to a list to be produced at the auction, to be taken by valuation.

Parties wishing to view the property may do so on application to Mr. ALEXANDER BASSETT, mineral surveyor, Cardiff.

For further particulars, apply to Messrs. C. H. and F. JAMES, or to W. R. SMITH, Esq., solicitors, Merthyr, or to the auctioneer.—Merthyr Tydvil, Nov. 20, 1861. 79

EGLWYSYLAN, GLAMORGANSHIRE.
IMPORTANT ESTATES, WITH MINERALS.

MESSRS. JACKSON, NEALE, AND CO. WILL SELL, BY AUCTION, at the Cardiff Arms Hotel, in Cardiff, on Saturday, the 4th day of January, 1862, at Twelve o'clock precisely (by direction of a mortgagee, acting under absolute powers of sale) the undermentioned conveniently situated and very VALUABLE FREEHOLD and LEASEHOLD PROPERTIES, in two lots.

The freeholds, comprising two estates, called BRYNTAIL and CRAIG ALFA, situate near Treforest, in the parish of Eglwysylan, and containing about 157 acres, are reported to richly abound in paving stone, ironstone, and superior coal, of the estimated value of £90,000. They are situate in the South Wales mineral basin, near the high road, and equidistant from Cardiff and Merthyr Tydvil, and adjacent to the Eglwysylan Mountain, the Glamorganshire Canal (which has a terminus at the port of Cardiff), and the Treforest station of the Taff Vale Railway.

One hundred acres of coal and a piece of land, containing half an acre, are leased for 14 years, from 17th June, 1859, at an annual rent of £500, and 1s. per ton for all coal raised in any one year above 10,000 tons.

The lease contains very advantageous provisions, and, amongst others, for the lessees laying down a railway from the colliery to the Glamorganshire Canal, distant about half a mile, and leaving, at the determination of the term, such railway, and all erections, works, and additions for the landowner's benefit.

There are several veins of coal under each estate, varying from 3 ft. to 9 ft. in thickness, and averaging about 45,029 tons of coal per acre.

These facts render the auction a legitimate and admirable opportunity for the establishment of a limited liability company to purchase and work the minerals.

It is estimated that the coal can be worked and shipped at Cardiff at a nett profit of about 3s. per ton.

The leaseholds (the minerals beneath which are reserved) comprise two plots of ground, adjoining Craig Alfa, and are parts of the Pentrebach lands, one of such plots containing one acre and a half, with the four tenements thereon, called Wyf Dho, Wyf Neithiwr, Wyf Hedy, and Wyf Heno, held for the residue of a term of 21 years, from Dec. 25, 1849, renewable until the expiration of the full term of 84 years, at the annual chief rent of £22 10s.; and the other plot containing one statute acre, with the dwelling-house and offices thereon, part whereof has heretofore been used as a beer-house, called Gelhy Fedhig, and the other part as a surgery, and a strip of land used as a roadway thereto, respectively held for the residue of a term of 21 years, from March 5, 1853, renewable for 84 years, under the yearly chief rent of £20. The freeholds and first-mentioned leaseholds will comprise Lot 1, and the remainder of the leaseholds Lot 2.

NOTE.—A copy of the colliery lease, an abstract of the lease of a part of the leasehold premises, and the original lease of the residue will be produced at the auction, and in the interim may be inspected at the office of Mr. RICHARD STUBBS, solicitor, 1, Nicholas-street, Bristol, of whom further particulars with plans may be had; as well as of the auctioneers, Shannon-court, Corn-street, Bristol; or Mr. TRENERRY, solicitor, 1, Nicholas-street, Bristol; or in London, of Messrs. GOSLING AND GIRDLESTONE, solicitors, 18, New-street, Spring Gardens, S.W. 80

PEMBROKESHIRE.

TO RAILWAY CONTRACTORS, ENGINEERS, AND COAL AND IRON PROPRIETORS—BARRY ISLAND SLATE QUARRIES.—TO BE SOLD, BY PRIVATE CONTRACT, TWO VALUABLE STEAM ENGINES, one 35 and the other 25 horse power. About TWO HUNDRED AND FIFTY TONS of RAILS, nearly equal to new, of the weight of about 12 lbs. per foot, with 12 lb. chairs and nails, laid down about ten years, but scarcely used. Also, a 6-ton weigh-bridge, about 28 wagons (nearly as good as new) to fit the rails. Also, 5½ sets of new wagon wheels, axles and pedestals, 3 sawing tables and 2 planing tables (for slate), with gear, wire pipes, whims, &c., comprising a complete fit out for mines, slate quarries, &c.—For further particulars, apply to Mr. JACK, on the premises; Messrs. SURR and GRIBBLE, solicitors, 12, Abchurch-lane, London: Messrs. BURGOYNE, MILNES, and BURGOYNE, solicitors, 160, Oxford-street, London; Messrs. PALMER, PALMER, and BULL, solicitors, 24, Bedford-row; Messrs. POWELL, MATHIAS, and EVANS, solicitors, Haverfordwest; and Messrs. GOODE and OWEN, land agents, Haverfordwest.

N.B.—As the leases of the above quarries are for sale, parties desirous of purchasing the whole are requested to make immediate application before the plant is disposed of. 81

TO BE SOLD, OR LET, a VALUABLE SLAB QUARRY, near MACHYNLLETH, in full working order; 7 circular saws, 2 patent planes, 3 water-wheels, wagons, rails, drum, incline, offices, and stores. Rent, to include all royalty, £300 per annum. Owner would be the largest consumer. Trains to port and main line. A very safe and profitable investment.—Apply to Mr. BELL WILLIAMS, land agent, 40, North John-street, Liverpool. 82

TO CAPITALISTS AND OTHERS.—TO BE SOLD, BY PRIVATE CONTRACT, with immediate possession, the FENCE COLLIERY, at the Woodhouse Mill Station, on the Midland Railway.

The shafts are sunk down to, and are working, the High Hazle seam of coal, and the colliery is at the present time capable of producing from 150 to 200 tons a day.

The colliery is very favourable situate, in close proximity to the Midland and Manchester, Sheffield, and Lincolnshire Railways, and in the immediate neighbourhood of Sheffield, and the manufacturing districts adjoining.

The celebrated thick, or Barnsley, seam of Yorkshire exists under this property at a moderate depth, and a very favourable opportunity presents itself for the establishment of a colliery upon this seam at a comparatively small outlay.

The whole of the plant, machinery, cottages, &c., may be taken to.

Further particulars may be obtained from, and offers will be received by, Messrs. RYLAND and MARTINEAU, solicitors, Birmingham; or Messrs. WOODHOUSE and JEFFCOCK, civil and mining engineers, Derby. 83

COLLIERY.—TO LET, for such a term as may be agreed on, the NEW CHELTENHAM PIT, KINGSWOOD, near BRISTOL, now sunk to the depth of 20 fms., with the coal under 100 acres of land, or more if required, proved by boring from the bottom of the pit to exist of the thickness of 3 ft. at the further depth of 10 fathoms.

A suitable steam-engine has been erected, which, with the plant, is to be taken by the lessee at a valuation.

The works are situated at about three miles from Bristol, whither the coal can be carted at a cost of 2s. per ton.

Further information can be obtained on application to Messrs. WHITTINGTON and GRIBBLE, solicitors, Bristol; or to Mr. G. C. GREENWELL, mining engineer, Radstock, Bath. 84

COAL BEDS.—TO BE LET ON LEASE, for 21 years, from the 25th of March, 1862, the VERY EXTENSIVE and VALUABLE COLLIERIES called the SHEFFIELD COLLIERIES, within the parish of Sheffield, in the county of York, for many years carried on and known by the names of the SOAP HOUSE COLLIERY, the CASTLE COLLIERY, and the MANOR COLLIERY. Also, the COAL WORKINGS, wrought by outstroke, UNDER LANDS at BIRLEY VALE, in the parish of Handsworth, about three miles from the town of Sheffield.

The Silkstone and the Park Gate beds of coal have been worked at these collieries by the Sheffield Coal Company, whose lease will expire on the 25th day of March, 1862.

There is yet unworked in the parish of Sheffield—
Of the Silkstone bed, upwards of ..... 800 acres, 6 ft. 0 in. thick.
Of the Park Gate bed, upwards of ..... 400 acres, 5 ft. 3 in. thick.
And in the parish of Handsworth—
Of the Silkstone bed, upwards of ..... 300 acres, 6 ft. 0 in. thick.
Of the Park Gate bed, upwards of ..... 200 acres, 5 ft. 0 in. thick.

The beds in the parish of Sheffield are under the lands of the Duke of Norfolk, and those in the parish of Handsworth are under lands not the property of His Grace. In each case the coal field is quite entire.

The coal from the collieries in the parish of Sheffield is conveyed to the depôt contiguous to the town by means of tram and railways made through the Duke of Norfolk's estate.

The Birley Vale branch of the Manchester, Sheffield, and Lincolnshire Railway was constructed by that company a few years ago into the coal field in the parish of Handsworth, now proposed to be let.

The Silkstone coal in London and in the provincial towns is classed amongst the best house fire coal, and the Park Gate coal is used very extensively for trade purposes, and likewise for domestic use. Coke from these coals is made in great quantities.

The increasing trade of the town and neighbourhood of Sheffield, and the nearness of the collieries to that town, the facilities afforded by the Manchester, Sheffield, and Lincolnshire, the Great Northern, and the Midland Railways, and the fact of the coal fields being entire, and wholly the property of the Duke of Norfolk, give to these collieries advantages which few possess.

For further particulars, apply to Mr. MARCUS SMITH, at the Norfolk estate office, Sheffield; or to Messrs. FEW and Co., solicitors, Covent-garden, London.
November 13, 1861. 85

THE TANYBWLCH SLATE QUARRY, LLANLLECHID, BANGOR, NORTH WALES.

This quarry has only very recently been opened by the owner, and although the operations have been very limited the quantity of slates obtained has been very considerable, and of superior quality.

The quarry is situated within two miles of the Penrhyn Slate Quarries, the property of the Hon. Col. E. G. Douglas Pennant, M.P., and has every facility for the conveyance the slates to the town and port of Bangor, distant four miles, and thence by rail and ship transit.

A report of the capabilities of the quarry has recently been made by an experienced practical surveyor, a copy of which will be forwarded on application to the owner of the quarry, Mrs. TAYLOR, Albion Hotel, Bangor, of whom particulars as to terms of letting can be obtained.

ST. JUST UNITED TIN AND COPPER MINING COMPANY (LIMITED), IN THE PARISH OF ST. JUST, NEAR PENZANCE, IN THE COUNTY OF CORNWALL.

Incorporated under the Joint Stock Companies Acts, 1856 and 1857.

Capital £15,000, in 6000 shares of £2 10s. each. Deposit on application 5s., and 5s. on allotment.

DIRECTORS.

JAMES WRIGHT, Esq., C.E., 42, New Bridge-street, Blackfriars, London.
Col. BUSH, 55, York-terrace, Regent's-park, London.
THOMAS COOPER SMITH, Esq., 5, Warnford-court, Throgmorton-street, London.
} Directors of the Great Wheal Martha Mining Company.
Capt. GOLDICUTT (late 60th Rifles), Barton Villas, Barnsbury, London.
WENTWORTH LASCELLES SCOTT, Esq., M.S.A., Westbourne-park Bayswater, London.
WILLIAM GREEN, Esq., Beverley-road, Hull, Yorkshire.
GEORGE EUSTICE, Esq., C.E., Hayle, Cornwall.

BANKERS—Robarts, Lubbock, and Co., 11, Mansion House-street, London. Batten, Carne, and Carne, Penzance, Cornwall.
BROKER—Alexander Young, Esq., 3, Bartholomew-lane, or Stock Exchange, City, London.
SOLICITORS—Messrs. Hancock, Sharp, and Hales, 20, Tokenhouse-yard, City, London.
AUDITORS—Messrs. Cooper Brothers and Co., 13, George-street, Mansion House, London.
SECRETARY—Mr. E. Evans.

OFFICES,—23, MOORGATE STREET, CITY, LONDON.

This company is established for purchasing and working the extensive and valuable tin and copper mines, called the St. Just United, in the parish of St. Just, near Penzance, Cornwall, and situate in a district which is one of the most productive in the county, and has become distinguished by the rich returns and profitable results of mining operations carried on within it. The undermentioned mines, which are producing immense quantities of ores, and continue paying large dividends to the shareholders, are immediately adjoining and contiguous to the one under notice:—

Names of Mines now working, paying dividends.	No. of Shares	Amount paid per share.	Dividends paid per share.	Original outlay.	Total Amnt. of dividends paid.	Present market value.
Levant (tin & cop.)*..	160	£2 10 0	£1091 0 0	£ 400 0 0	£174,560 0	£ 16,000 0
Botallack (tin & cop)*	200	91 5 0	445 15 0	18,250 0 0	89,150 0	48,000 0
Wheal Owles (tin)† ..	80	70 0 0	280 13 0	5,600 0 0	22,452 0	24,000 0
Balleswidden (tin)† ..	1624	11 15 0	12 5 0	19,082 0 0	19,894 0	19,488 0
Boscean (tin)†.....	240	20 10 0	33 0 0	4,920 0 0	7,920 0	12,000 0
Spearne Moor (tin)†..	280	31 17 9	9 15 0	8,928 0 0	2,730 0	12,600 0
Carnyorth (tin)†	2948	3 10 0	0 19 6	7,168 0 0	1,996 16	7,168 0
	4632	231 7 9	£1873 7 6	64,348 0 0	£318,712 16	£139,256 0

* Decomposed granite, slate, and greenstone. † Decomposed granite.

The above seven mines, on an outlay of £64,348 on the present working, have already paid back in dividends to the shareholders £318,712 16s.

As the before-mentioned mines stand prominent in the dividend-paying list, it may not be out of place to state also that Botallack Mine has given back to the shareholders in its former workings upwards of £250,000; Boscaswell Downs Mine upwards of £40,000, and again resumed working by a new company; Wheal Cunning upwards of £25,000; Boscean Mine upwards of £15,000; and Spearne Consols for an outlay of £1280 upwards of £10,000; thus making a total sum five mines have paid back in dividends to shareholders of £340,000.

PROGRESSIVE MINES.

Names of mines working.	Shares	Original outlay.	Market value.	Geological position.
Pendeen Consols (cop.)..	5000	£18,000 0 0	£ 28,780 0 0	granite, slate, & green-
Boscaswell Downs (tin)	1248	7,800 0 0	9,984 0 0	granite. [stone.
Wheal Hearle (tin)	1024	7,680 0 0	15,360 0 0	granite.
Boswedden (tin)	123	3,936 0 0	3,936 0 0	granite and greenstone.
Bosorn (tin)	160	1,000 0 0	1,600 0 0	granite.
		£38,416 0 0	£59,660 0 0	Decomposed

The setts are very extensive on the course of the lodes, and have been granted at the very moderate royalty of 1-24th dues for the term of 21 years, and upon the usual mining conditions. Fourteen rich tin and copper lodes and three cross-courses pass through this ground; some of these lodes have been wrought on, and, so far as they have been opened, have proved very productive, and will, no doubt, at a deeper level prove richer and lasting in their downward courses. This, in fact, has actually been the result in every mine in the district.

The geological position of this extensive and valuable mining property cannot be surpassed in the county. It is in beautiful strata, quite congenial for producing tin in the granite, and copper in the killas (clay-slate) immediately adjoining the granite, precisely of the same character as Botallack, Levant, Pendeen Consols, and other mines in the district.

These mines lie immediately adjacent to the rich Botallack, Levant, and other mines, all making large dividends, and producing tin in the granite inland, and copper ore in the killas under the sea. All these mines exist under such geological parallels, that it is almost impossible to overlook the fact that they cannot fail under good management to become highly profitable; so much so, that in a long catalogue of all the surrounding mines, not one but has proved a most excellent investment for capital.

With reference to these especial mines, the lodes in them which have been worked for tin for centuries have proved so profitable that the waste heaps seem inexhaustible, and after being worked over the third or fourth time are now affording great profits.

There are very large quantities of tin now lying underground, which were broken when that metal was worth about £40 per ton, but it is now worth £76 per ton, and may consequently now be prepared for market at considerable profits.

There is an immense field of tin ground, containing 14 lodes, in the grant. These have been partially worked to an inconsiderable depth, about 60 fms., under adit; affording evidence that there remains an unlimited supply below, which may be worked to extraordinary profits under the favourable circumstances of the prevailing high prices of tin, low prices of mining materials, and the improved steam-power of the age.

Some very beautiful specimens of blistered copper ore may be seen in the offices of the company, broken in the last day or two of working in the 40, by the last workers; but the levels, although close to the copper formation, have not been carried into it, and some idea of its extent and value may be formed from the evidence of a similar range of copper ore ground worked in Botallack Mine, which has given as much as £24,000 per annum profit.

There can be no doubt that this property is actually teeming with certain and abundant mineral wealth, as it is the decided opinion of persons competent to speak on this mine, that when it shall have been set to work the profits that will accrue therefrom will place it in a position second to none in the district for the outlay.

The directors, after an unusually rigid enquiry and careful inspection of these mines, have the greatest confidence in bringing this property before the public, and they feel satisfied, by established facts, that a more promising and advantageous investment, and one more free from any speculative feature, has never before been offered to the public.

A reference to the section and sketch of the sett will better illustrate the position of the lodes of these mines.

The opinions of several mining engineers that have been consulted on the subject are, that a steam engine of 36 in. cylinder rotative expansive machine, for pumping and stamping may be erected, and the mine drained, for about £5000, when it is estimated that a small additional sum will carry the 40 and 62 westward into the copper ore ground, so as to give dividends to the shareholders almost at once, or at any rate within a very short period afterwards.

The capital of the company will consist of £15,000 in 6000 shares of £2 10s. each, depost 5s. per share on application, 5s. per share on allotment, and the future calls will not exceed 5s. per share at any one time.

The conditions of purchase for this valuable property are £2000 in cash, and £3000 in paid-up shares, the consideration for which embraces a lease of 21 years on highly favourable terms, the benefit of the work already done, with the plant, houses, materials, and dreams upon the mine; this will leave £10,000 for working capital, which is considered more than ample to carry out all the work necessary to place the mine in a dividend position.

The company having been completely registered with Limited Liability, no shareholder can, under any circumstances whatever, be made responsible for a greater amount than the shares to which he subscribes.

There are no special Articles of Association. Table B under the Joint-Stock Companies Act of Parliament having been adopted in its entirety.

To insure subscribers for any loss, which often ensues when a sufficient number of shares are not applied for, the directors bind themselves to return the whole of the deposit money, unless at least one-half of the shares are subscribed for.

A considerable portion of the capital has been already subscribed, and the directors will proceed to allot the shares as soon as they deem the requisite number applied for.

It is unnecessary to enter into further particulars in the prospectus, as the annexed reports of mining engineers and practical agents of the highest standing in the district, who have inspected these mines, will sufficiently corroborate the statements herewith submitted.

Some fine specimens of the ores from the various lodes may be seen at the offices.

Prospectuses, plans, forms of application for shares, and any other information, may be obtained of the secretary at the offices of the company, or from ALEXANDER YOUNG, Esq., Stock Exchange, London.

LAKE SUPERIOR, U.S.—Mr. G. W. HAMBLIN, Post Master,

Negaunee Post-office, Marquette County, Lake Superior, U.S., has opened an office as above, for the purpose of supplying mineralogical specimens generally, but more particularly such as are peculiar to the district, to museums and collectors throughout the world. From his acquaintance with the different localities on the Lake, and with mining captains, he has facilities for collecting minerals, also for procuring the rarer sorts. Residing in the centre of the iron district, Mr. Hamblin can furnish specimens of ores of great beauty as cabinet specimens, of which the mammillary and stalactitic forms of hematite are worthy a place in any cabinet. He can also supply specimens of native copper and silver, with the accompanying minerals, many of which occur as crystals, forming rare objects of interest to the collector. Collections made up of all sizes and states of completeness, from the value of $25 (or £5 sterling) to $200. Letters of enquiry or conveying orders must be post paid.—P.S.—On receipt of £5 sterling Mr. Hamblin will forward a set of iron specimens; also, native copper and silver.

Crystals as follows will be supplied at from $2 to $4 each:—Quartz, calc spar (Dog Tooth and other varieties), epidote, greenstone, prehnite (with copper), black oxide copper, analcime, chlorastrolite (found only at Isle Royale), native copper, (crystallised), calc spar (with radiated epidote), ripple marked quartz (from the metamorphic strata), and a large variety of others illustrative of the geology and mineralogy of this part of the world.

On account of convenience of remittance, the smallest collection which can be forwarded will be $25 (or £5 sterling).

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM.

BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM

HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS, ON SALE OR HIRE, AT THE ROTHERHAM WAGON WORKS, MASBRO'.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS

RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

THE RAILWAY CARRIAGE COMPANY,

OLDBURY, NEAR BIRMINGHAM.
MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.
NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.
LONDON OFFICES,—No. 1, MOORGATE.

ELECTRIC TELEGRAPH CONTRACTORS SUPPLIED with

MALLEABLE IRON CASTINGS to pattern.
T. SHORT AND CO., 70, LEGGE STREET, BIRMINGHAM.

RAILWAY CONTRACTORS SUPPLIED with MALLEABLE

IRON CASTINGS to pattern.
T. SHORT AND CO., 70, LEGGE STREET, BIRMINGHAM.

IRON PLATE WORKERS, BRAZIERS, and GALVANIZERS

SUPPLIED with MALLEABLE IRON NIPPLES for SUGAR CONES to pattern.
T. SHORT AND CO., 70, LEGGE STREET, BIRMINGHAM.

NOTICE TO RAILWAY COMPANIES.—A RAILWAY

SIGNAL of a NOVEL DESCRIPTION (patented) is NOW IN OPERATION on the MANCHESTER AND ALTRINCHAM RAILWAY, which GIVES NOTICE of the APPROACH of a TRAIN HALF A MILE OFF, and, if required, can announce it at any other given distance. It is novel and simple in its construction, not a single complicated movement in it, and when laid down will not require repairs for years. A model may be seen at the *Mining Journal* office, 26, Fleet-street, London, in the course of a week, and a gentleman will shortly call on the different railway companies centering in the metropolis to give any required explanations.

TRACTION ENGINES FOR STEEP INCLINES.—

It is proposed to form a limited company, with a capital of £7000, in 70 shares of £100, for the purpose of bringing into use the protected invention of Mr. John Marshall, C.E., by means of which engines can be constructed for the conveyance of from 10 to 50 tons, according to size and weight of engine, on ordinary roads having an inclination as steep as 1 in 4.—Specifications, with formula, on application to L. C. HERTSLET, Esq., 448 West Strand, London.

STEAM ENGINE FOR SALE.—A 36 in. cylinder STEAM

ENGINE FOR SALE, equal to new, with 10 ton BOILER, to be seen at Wheal Trevelyan Mine, Goldsithney, near Marazion.—For further particulars, apply to Mr. E. KING, 27, Austinfriars, London.

TRADE MARK .....

JAMES RUSSELL AND SONS, CROWN TUBE WORKS,

WEDNESBURY, STAFFORDSHIRE.
WAREHOUSE,—81, UPPER GROUND STREET, BLACKFRIARS, LONDON, S.
The ORIGINAL INVENTORS of WROUGHT IRON TUBES for GAS, WATER, &c. LAP-WELDED BOILER TUBES, HOMOGENEOUS TUBES for BOILERS, &c. GALVANISED and ENAMELLED TUBES, SCREWING TACKLE, STEAM and WATER GUAGES, and EVERY VARIETY of FITTINGS.

JOB TAYLOR AND CO., SWAN FOUNDRY,

OLDBURY, NEAR BIRMINGHAM,
SOLE PROPRIETORS of HINTON'S PATENT CUPOLA, which CONSUMES FIFTY PER CENT. LESS COKE than any cupola yet invented. MAKERS of ALL KINDS of MACHINERY connected with the GRINDING and TEMPERING of EVERY SORT of CLAY or MARL, and for the MANUFACTURE of BRICKS, TILES, DRAIN PIPES, &c. Also, of HIGH and LOW PRESSURE STEAM ENGINES of any dimensions, and of GENERAL MACHINERY.

LLOYD AND LLOYD, ALBION TUBE WORKS,

BIRMINGHAM,
MANUFACTURERS OF PATENT LAP-WELDED IRON TUBES, FOR LOCOMOTIVE, MARINE, AND STATIONARY BOILERS.
IMPROVED HOMOGENEOUS METAL TUBES.
ALL DESCRIPTIONS OF TUBES AND FITTINGS FOR GAS, STEAM AND WATER, PLAIN, GALVANISED AND ENAMELLED.
GUN-METAL STEAM GLAND COCKS, WATER GAUGES, &c.

SHORTRIDGE, HOWELL, AND CO., HARTFORD STEEL

WORKS, SHEFFIELD, SOLE MANUFACTURERS of HOWELL'S PATENT HOMOGENEOUS METAL PLATES for BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING the STRENGTH of STEEL with the MALLEABILITY of COPPER. RUSSELL AND HOWELL'S PATENT CAST STEEL TUBES. McCONNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to SHORTRIDGE, HOWELL, and Co., Hartford Steel Works, Sheffield; or Messrs. HARVEY and Co., 12, Haymarket, London.

CORNISH BORER STEEL.—Upwards of ONE HUNDRED

AND SIXTY MINES are SUPPLIED with this STEEL, and the DEMAND for it is RAPIDLY INCREASING.—For terms, apply to R. MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.

CYANOGEN STEEL, CAST STEEL, SHEAR STEEL, and

IMPROVED FOREST BLISTER STEEL supplied to order by ROBERT MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.
Address to the Works, Coleford.

NICKEL AND COBALT REFINING, AND GERMAN SILVER

WORKS, 16, OOZELL STREET NORTH, BIRMINGHAM.
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL.	OXIDE OF COBALT. [WIRE, &c
REFINED METALLIC BISMUTH.	GERMAN SILVER—IN INGOTS, SHEET

NICKEL AND COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND

CHEMICAL WORKS,
NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.
JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER.
Reference.—Professor Miller, King's College, London.

PATENT MOVABLE FIRE BAR COMPANY (LIMITED).

DIRECTORS.
SAML. H. BLACKWELL, Esq., Ironmaster, Dudley.
SAML. THORNTON, Esq., Merchant, Birmingham.
JONATHAN GRINDROD, Esq., C.E., Liverpool.
JOHN LLOYD, Esq., Engineer, Lilleshall.
OFFICES,—16, HACKIN'S HEY, LIVERPOOL.

WRIGHT'S PATENT BARS for LOCOMOTIVE, MARINE, and STATIONARY BOILERS, PUDDLING and OTHER FURNACES.

The proprietors have great pleasure in recommending the above as the simplest and best arrangement in use. The bars have already been adopted by some of the leading firms in the Midland Iron District, in various channel and ocean-going steamers, and the large breweries in Burton, and have, in every case, given great satisfaction.

For prices charged, apply at the company's office, Liverpool.
AGENTS WANTED; also, TENDERS from ironfounders for CASTING the BARS.

TO COAL OWNERS AND COKE BURNERS.

MACKWORTH'S PATENT COAL WASHER,

OR PURIFIER.—This MACHINE will EXTRACT the HALE and ALL HEAVY IMPURITIES from SMALL COAL at a COST of TWOPENCE PER TON.—For particulars and references, apply to the makers, A. and T. FRY, Temple-gate Works, Bristol; or to Mr. JOS. RIDER, Basinghall-street, Leeds.

CREASE'S PATENT EXCAVATING MACHINERY,

for SUPERSEDING the SLOW and EXPENSIVE use of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmistakable advantage—that when the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—*Mining Journal.*

BELL BROTHERS beg to intimate that, having become SOLE

LICENSEES in the United Kingdom of PROF. DEVILLE'S METHOD of PRODUCING PURE ALUMINIUM, they are now in a POSITION to SUPPLY, from their works here, both this metal and its compound with copper, known under the name of ALUMINIUM BRONZE.—Newcastle-on-Tyne, September, 1860.

HALL AND WELLS, PATENTEES AND

MANUFACTURERS OF SUBMARINE TELEGRAPH CORES, CABLES, &c.—TELEGRAPH CONDUCTORS INSULATED with INDIA RUBBER at £5 per mile and upwards, PARTICULARLY ADAPTED for MINING PURPOSES. Further particulars as to price of cores, cables, &c., can be had on application at 60, Aldermanbury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E.
Copper wire covered with silk, cotton, or any other material, to order.

TO INVENTORS.—All INTENDING PATENTEES should

PROCURE the PRINTED INFORMATION regarding PATENTS, their COST, and the MODE of PROCEDURE to be adopted, ISSUED GRATIS by the GENERAL PATENT COMPANY (LIMITED), 71, FLEET STREET, LONDON.
R. MARSDEN LATHAM, Sec.

BEDFORD IRONWORKS, TAVISTOCK.

NICHOLLS, WILLIAMS, AND CO. have generally a GOOD

STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

AYTOUN'S PATENT SAFETY CAGE AND HOIST.

CHANGE OF LICENSE FEE WILL SHORTLY TAKE PLACE, from £1 to £6 and upwards.
[See *Mining Journal* of November 29.]
Apply to the patentee, ROBERT AYTOUN, 3, Fettes-row, Edinburgh.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE

MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH DAVEY, and PRYOR who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which, being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.
Address,—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO.,

PENHALLICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE upon warrant that it will prove equal to, if not better than, any to be procured elsewhere.

DAVEY'S PATENT BLASTING POWDER,

MANUFACTURED BY DAVEY BROTHERS AND CO.,
NANCEKUKE POWDER WORKS, TUCKINGMILL, CORNWALL.

This blasting powder possesses the following advantages over every other in use:—Its COMBUSTION is SLOWER and MORE PERFECT when confined in the hole, PRODUCES LESS SMOKE, is LESS DANGEROUS, and it generally BURSTS MORE ROCK with a CHARGE OCCUPYING the SAME SPACE, but WEIGHING from TWENTY to THIRTY PER CENT. LESS than other powder, EFFECTING an IMPORTANT SAVING.

DAVEY BROTHERS and Co. beg to state that this powder is specially made for blasting, and from its slow combustion is not adapted for projectiles. They would, therefore, caution consumers against the efforts of interested parties to put it to a fallacious trial, by firing a ball from a mortar, which is no test of its explosive force when confined.

MINERS' DIALS, LEVELS, ANEMOMETERS,

PIT BAROMETERS, &c.
DIALS WITH THE LATEST IMPROVEMENTS.
APPOINTED MAKER of HEDLEY'S DIAL.
BIRAM'S PATENT ANEMOMETER, 4 in., £2 10s.; 6 in., £3 3s.; and 12 in., £4 4s.
JOHN DAVIS, DERBY, MANUFACTURER of MINING INSTRUMENTS.
Price list on application.

PATENT LEVER BREAK, FOR RAILWAY WAGONS,

doing away with the objectionable break rack. Can be APPLIED to EXISTING STOCK at a TRIFLING EXPENSE. Royalty moderate. Models can be seen at No. 1, Moorgate, London, E.C.; and the breaks in action at the works of the Railway Carriage Company; at the Peterboro' Station, on the Eastern Counties Railway; the Rugby Station, London and North-Western Railway; the Cardiff Docks Station, Taff Vale Railway; and at the Works, Oldbury, near Birmingham, where all communications are requested to be sent.

GOLD GETTING MACHINES, for Nova Scotia. Also, the

NEW PATENT HYDRAULIC PRESS, important to shippers, packers, and seed crushers, weighing only a few hundredweights instead of tons. Can be seen at the patentee's, J. WALKER, 17, Cowper-street, City-road.

WIRE-ROPE TESTING.

PUBLIC TEST of A. J. HUTCHINGS AND CO.'S PATENT

WIRE-ROPE at LIVERPOOL, FEBRUARY 27, 1861.
[From the *Daily Post* of March 1, 1861.]

On Wednesday, the 27th of February, a series of EXPERIMENTS on WIRE-ROPE took place at the Corporation Testing Works, King's Dock. The specimens tested were manufactured by the well-known firm of A. J. HUTCHINGS and Co., of Millwall, London, the Contractors to the Lords of the Admiralty and various foreign Governments, the character of whose rope is so well known in this country, as well as all parts of the Continent. Capt. Ducraft, of H.M.S. *Hastings*, and a number of other gentlemen connected with shipping, were present to witness the experiments, all of which were considered highly satisfactory, and in every respect sustained the reputation of the manufacturers. The following are the results of the experiments:—

An 8 in. rope bore 70 tons WITHOUT BREAKING.

Circumference and breaking strain.

2¼	2½	3	3½	3⅝	4	4½
10¾ tons	14 tons	20 tons	27 tons	29 tons	32¾ tons	45½ tons

N.B.—The 2¼, 3, and 4 in. ropes were the sizes actually tested. The remaining sizes and strains are comparative.

THE ABOVE ROPES ARE FOR COLLIERY USE.

Size. Inches.	Hutchings and Co.'s wire-rope for ships' rigging. Tested Feb. 27, 1861.	Newall and Co.'s Test of Oct. 29, 1860.	Garnock, Bibby, and Co.'s Test, Oct. 29, 1860.
2	5 tons 15 cwts.	—	—
2¼	11 „ 14 „	7 tons 15 cwts.	8 tons 16 cwts.
3⅛	16 „ 10 „	—	—
3½	22 „ 8 „	—	18 „ 5 „
3⅝	23 „ 10 „	16 „ 10 „	—
4	29 „ 10 „	18 „ 15 „	—
4½	37 „ 15 „	—	26 „ 10

N.B.—The 2, 3⅝, and 4 in. ropes were the actual sizes tested. The remaining sizes and strains are comparative.

The above tests certified by Mr. M'Donald the Superintendent of the Corporation Testing Works, Liverpool.

SARL AND SONS, 17 and 18, CORNHILL, respectfully

SOLICIT a VISIT to their magnificent ESTABLISHMENT. The ground floor is more particularly devoted to the display of FINE GOLD JEWELLERY, GOLD and SILVER WATCHES, and FINE GOLD CHAINS.

The SILVER PLATE DEPARTMENT is in the gallery of the building, and consists of every article requisite for the table and sideboard.

In the magnificent show-rooms is displayed a large and beautiful stock of ARGENTINE PLATE, the manufacture of which has stood the test of 20 years' experience.

SARL and SONS have also fitted up a separate show-room for the display of DRAWING and DINING ROOM CLOCKS of the most exquisite designs. Books containing drawings and prices may be had upon application.
SARL AND SONS, 17 and 18, CORNHILL, LONDON.

AUSTRALIA AND NEW ZEALAND

WHITE STAR EX-ROYAL MAIL CLIPPERS,
SAILING FROM
LIVERPOOL to MELBOURNE on the 1st and 20th of every month.

*** Passengers holding Victoria passage warrants will be forwarded to Melbourne by these vessels.

Ship.	Captain.	Register.	Burthen.	To sail.
STAR OF INDIA	BUCHAN	1697	5000	Dec. 20.
TELEGRAPH	SULLY.....	1118	3350	Jan. 20.

The magnificent packet ship, *Star of India*, is quite new, having only made one voyage from St. John's to Liverpool, on which occasion she proved herself to be a very fast and comfortable ship. She was built by Messrs. Wright, the well-known builders of the *White Star*, *Morning Light*, and other famous clippers, the former of which has made the passage to Melbourne in 69, 70, and 71 days, and she combines most of the improvements required in first-class passenger ships. Her saloons are roomy and handsomely furnished, bedding, linen, and all necessaries being found in this class. Her accomodations for second cabin, intermediate and steerage passengers are very superior.

For freight or passage apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., 124, Bishopsgate-street, and 55, Parliament-street; or SEYMOUR, PEACOCK, and Co., 116, Fenchurch-street, London.
Wilcox's Australian and New Zealand hand-books sent for two stamps.

ALBERT AND MEDICAL LIFE ASSURANCE,

7, WATERLOO PLACE, PALL MALL, LONDON, S. W.
ESTABLISHED 1838.

The business of the Medical, Invalid, and General Life Assurance Society having been amalgamated with the Albert Life Assurance Company, the united business will henceforth be carried on under the above title.

Accumulated fund exceeds	£500,000
Subscribed capital	447,180
Paid-up capital	137,000
Annual income from life premiums, upwards of.....	220,000

The new business is now progressing at the rate of more than £25,000 per annum.

From Prof. De Morgan's report upon the last valuation of liabilities (end of 1858), and the statements of accounts, it appeared at that time that the surplus in favour of the Albert business alone, after providing for every liability, was £192,925 2s. 11d.

HENRY WILLIAM SMITH, Actuary.
C. DOUGLAS SINGER, Sec.

COUGHS, ASTHMA, and INCIPIENT CONSUMPTION are

EFFECTUALLY CURED by KEATING'S COUGH LOZENGES. Statistics show that 50,000 persons annually fall victims to pulmonary disorders, including consumption, diseases of the chest, and the respiratory organs. Prevention is at all times better than cure; be, therefore, prepared during the wet and wintry season with a supply of Keating's cough lozenges, which possess the virtue of averting as well as of curing a cough or cold. They are good alike for the young or for the aged. Prepared and sold in boxes, 1s. 1½d.; and tins, 2s. 9d., 4s. 6d., and 10s. 6d. each, by THOMAS KEATING, chemist, &c., 79, St. Paul's-churchyard, London. Retail by all druggists, &c.

A BOON TO NERVOUS SUFFERERS.

TWENTY THOUSAND COPIES OF A MEDICAL BOOK for

gratuitous circulation. HENRY SMITH, Doctor of Medicine of the Royal University of Jena, &c., who has devoted 15 years to the study and Treatment of Nervous Debility, Loss of Memory, and Indigestion, will send free, for the benefit of Nervous Sufferers, a copy of the NEW MEDICAL GUIDE, containing his highly successful mode of treatment, with necessary instructions by which sufferers may obtain a cure. Post free on receipt of a stamped directed envelope, from the author's residence 8, Burton-crescent, Tavistock-square, London, W.C.

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
4000	Bedford United (copper), Tavistock†	2 6 8	5⅛	5 5¼	12 8 6	0 1 6	Sept. 1861
240	Boscean (tin), St. Just†	20 10 0	60		35 10 0	1 5 0	Dec. 1861
200	Botallack (tin, copper), St. Just	91 5 0	230	230 240	443 5 0	2 10 0	Feb. 1860
1000	Carn Brea (copper, tin), Illogan†	15 0 0	80		269 10 0	2 0 0	Feb. 1861
2048	Carnyorth (tin), St. Just	3 10 0	1¾		0 19 6	0 2 0	Sept. 1860
200	Cefn Cwm Brwyno (lead), Cardigansh.	33 0 0	33		9 0 0	4 0 0	April, 1861
50000	Connorree (copper, sulphur) [L. £1]	1 0 0	34s.	31s. 6d.	0 0 9	0 0 9	July, 1860
2450	Cook's Kitchen (copper), Illogan	17 0 9	29⅛	28⅛ 29⅛	0 13 0	0 5 0	Sept. 1861
12000	Copper Miners of England	25 0 0	25		7½ per cent.		Half-yrly.
350000	Ditto ditto (stock)	100 0 0	24		1 per cent.		Half-yrly.
1055	Craddock Moor (copper), St. Cleer*	8 0 0	26		6 5 0	0 7 0	Nov. 1861
867	Cwm Erfin (lead) Cardiganshire	7 10 0	21		6 3 0	0 15 0	Oct. 1861
128	Cwmystwith (lead), Cardiganshire*	60 0 0	200		231 10 0	4 0 0	Oct. 1861
280	Derwent Mines (sil.-lead), Durham	300 0 0	180		142 0 0	5 0 0	June, 1861
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	375	365 375	774 0 0	7 0 0	Nov. 1861
358	Dolcoath (copper, tin), Camborne*	128 17 6	550	550	640 10 0	7 0 0	Oct. 1861
3000	Dyfngwm (lead), Wales	12 6 6	10		0 5 0	0 2 6	Nov. 1861
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	65	60 65	93 0 0	3 0 0	Nov. 1861
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	27½	27 28	1 10 0	0 12 6	Oct. 1861
300	East Darren (lead), Cardiganshire*	32 0 0	45		78 10 0	1 0 0	Oct. 1861
1400	Eyam Mining Co. (lead), Derbyshire	5 0 0	—		20 3 4	0 10 0	May, 1861
4940	Fowey Consols (copper), Tywardreath	4 0 0	5		41 9 3	0 2 6	June, 1860
2800	Foxdale (ld.) [L.] [2560 £25 pd., 240 £15 pd.]†		35		64 12 7	1 12 0	Sept. 1861
5000	Frank Mills (lead), Devon	3 18 6	4¼		0 14 0	0 3 0	Sept. 1861
6000	Great South Tolgus [S.E.], Redruth*	0 14 6	4¾		7 13 6	0 5 0	Feb. 1861
1798	Great Wheal Fortune, Breage	18 6 0	13½	12 13	1 0 0	0 10 0	July, 1861
5908	Great Wh. Vor (tin cp.), Helston [S.E.]	40 0 0	6	6¼ 7	1 12 6	0 7 6	Sept. 1861
1024	Herodsfoot (ld.), near Liskeard [S.E.]	8 10 0	38	38 39	16 5 0	1 15 0	Oct. 1861
1000	Hibernian Mine Company	92 6 2	27½		7 10 0	0 15 0	Sept. 1861
160	Levant (copper, tin), St. Just	2 10 0	95		1091 0 0	5 0 0	May, 1860
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	110		377 10 0	2 0 0	Oct. 1861
9000	Marke Valley (copper), Caradon	4 10 6	10⅛	10⅛ 10⅜	1 6 0	0 5 0	Oct. 1861
5000	Mendip Hills (lead) [L.], Somerset	3 15 0	1¾		2 1 0	0 2 6	May, 1860
1800	Minera Mining Co. [L.], (ld.), Wrexham	25 0 0	170		78 3 3	3 2 6	Nov. 1861
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	16	15¼	14 7 11	0 7 0	June, 1861
640	Mount Pleasant, Mold	4 0 0	35		15 5 7	0 18 0	Oct. 1861
6000	New Birch Tor and Vitifer Consols	1 6 6	2¼	2 2¼	0 3 6	0 1 0	Sept. 1861
6000	North Downs (copper) Redruth	2 3 4	5⅛	5⅛ 5⅜	0 2 6	0 2 6	Aug. 1861
1366	North Grambler, Redruth	2 7 6	6		0 10 0	0 10 0	Mar. 1861
6000	North Great Work, Breage	1 3 0	1⅛		0 2 0	0 2 0	May, 1860
5000	Orsedd (lead), Flintshire	0 0 8	1⅛		0 8 1	0 1 3	Nov. 1861
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	7¼	7 7¼	36 9 6	0 5 0	Nov. 1861
200	Parys Mines (copper), Anglesey [L.]	50 0 0	—		12 10 0	2 10 0	Sept. 1861
200	Phœnix (copper, tin), Linkinghorne	100 0 0	435		449 10 0	55 0 0	May, 1861
1772	Polberro (tin), St. Agnes	—	5		6 9 6	0 15 0	April, 1861
1120	Providence (tin), Uny Lelant† [S.E.]	10 6 7	43	39 41	61 15 0	1 0 0	Nov. 1861
16	Rhosesmor	50 0 0	—		1250 0 0	100 0 0	Quarterly.
512	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	335	330 340	361 0 0	5 0 0	Nov. 1861
512	South Tolgus (cop.), Redruth, Cornwall*	8 0 0	45		103 10 0	1 0 0	Nov. 1861
496	South Wheal Frances, Illogan* [S.E.]	18 18 9	90	87½ 90	357 5 0	1 0 0	Nov. 1861
280	Spearne Moor (tin, copper), St. Just	31 17 9	45		9 15 0	1 0 0	June, 1861
940	St. Ives Consols (tin), St. Ives†	8 0 0	32	27¼ 32¼	484 10 0	0 10 0	Nov. 1861
9600	Tamar Con. (sil.-ld.), Beeralston [S.E.]	4 10 0	1¼	1⅛ 1¼	5 6 0	0 2 6	Jan. 1861
6000	Tincroft (cop., tin), Pool, Illogan [S.E.]	9 0 0	7¼	7¾ 8	10 18 6	0 5 0	Dec. 1861
572	Trelyon Consols (tin), St. Ives	11 10 0	16		7 0 0	0 10 0	Sept. 1860
200	Trumpet Consols (tin), near Helston	57 10 0	100		52 0 0	2 0 0	May, 1861
1024	Wendron Consols (tin), Wendron	11 13 10	10¾	10¼ 10¾	8 15 0	1 0 0	Jan. 1861
6000	West Basset (copper), Illogan [S.E.]	1 10 0	14	13⅛ 14⅛	22 0 0	0 5 0	Sept. 1861
60	West Burton Gill (lead), Yorkshire	50 0 0	—		14 10 0	3 0 0	June, 1861
1024	West Caradon (cop.), Liskeard [S.E.]*	5 0 0	50	50 53	99 11 3	1 0 0	Nov. 1861
256	West Damsel (copper), Gwennap	37 0 0	52	50 52¼	45 0 0	1 0 0	May, 1860
6400	West Fowey Consols (tin and copper)	7 10 0	4⅛	3¼ 3⅜	0 14 0	0 2 0	May, 1861
400	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	295	290 300	322 0 0	7 0 0	Oct. 1861
512	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	77½	80 85	576 10 0	2 0 0	Dec. 1861
256	Wheal Buller (cop.), Redruth* [S.E.]	5 0 0	80	75 80	929 0 0	2 0 0	May, 1861
2900	Wh. Clifford Amalgamated (cp.), Gwen.	30 0 0	31	30 31	26 0 0	10 0 0	Oct. 1861
2000	Wheal Falmouth and Sperries	2 5 0	8		0 10 0	0 10 0	Feb. 1861
128	Wheal Friendship (copper), Devon	50 0 0	90		2400 10 0	5 0 0	Feb. 1861
512	Wheal Jane (silver-lead), Kea	3 10 0	18		11 10 0	1 0 0	Oct. 1861
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	1 7 2	6¼		8 0 0	0 10 0	Sept. 1860
4800	Wheal Ludcott (lead), St. Ive	2 10 8	2⅜	2¼ 2¼	1 12 0	0 4 0	Oct. 1861
896	Wh. Margaret (tin), Uny Lel. [S.E.]†	9 17 6	43	42 44	70 0 0	1 0 0	Nov. 1861
100	Wheal Mary (tin), Lelant	36 2 6	440		280 5 0	7 0 0	June, 1860
1024	Wh. Mary Ann (ld.), Menheniot [S.E.]†	8 0 0	17	16 17	54 7 6	0 10 0	Sept. 1861
80	Wheal Owles, St. Just, Cornwall	70 0 0	300		285 13 0	5 0 0	Nov. 1861
5000	Wicklow (copper) [L.], Wicklow	5 0 0	56	58¼	43 17 6	2 0 0	Oct. 1861

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
700	Aberdovey (silver-lead), Merioneth	1 10 0	30		0 10 0	0 10 0	Mar. 1859
5120	Alfred Consols (cop.), Phillack [S.E.]	3 3 6	14s.	12s. 14s.	20 3 0	0 2 6	April, 1859
1624	Balleswidden (tin), St. Just	11 15 0	12		12 5 0	0 5 0	Jan. 1854
1200	Brightside & Froggatt Grove, Derbysh.	3 0 0	3⅛		3 0 0	3 0 0	April, 1856
200	Brynford Hall (lead), Flintshire	18 10 0	25		14 0 0	2 10 0	Oct. 1860
2500	Central Minera (lead) [L. £5]	0 15 0	5⅛		0 4 0	0 4 0	Sept. 1859
6000	Charlotte United, Perranuthnoe	2 13 2	21s.	21s.	0 13 0	0 1 6	Sept. 1859
2000	Collacombe (copper), Lamerton	5 5 0	12		3 5 0	0 8 0	Dec. 1857
256	Condurrow (cop., tin), Camborne	20 0 0	70	50 60	85 0 0	2 0 0	June, 1857
256	Copper Hill (copper) Redruth	48 0 0	110		2 10 0	2 10 0	Sept. 1859
4076	Devon and Cornwall (copper)	5 6 3	6		0 10 0	0 2 6	Feb. 1859
672	Ding Dong (tin), Gulval	39 2 6	15		16 7 6	1 10 0	Mar. 1857
12800	Drake Walls (tin, copper), Calstock	2 1 0	1	18s. 20s.	0 13 6	0 2 0	Sept. 1857
2048	East Falmouth (sil.-ld.), Kenwyn, Kea	3 5 0	¼		0 7 6	0 2 6	Jan. 1858
128	East Pool (tin, copper), Pool, Illogan	24 5 0	240		305 0 0	2 10 0	Aug. 1858
2048	East Wheal Lovell (tin), Wendron	2 13 6	—		0 5 0	0 5 0	July, 1859
6000	General Mining Co. for Irel. (cop., ld.)	4 0 0	5½		1 0 8	0 3 3	June, 1853
486	Grambler and St. Aubyn (cop.) [S.E.]	48 10 0	15⅛	18 20	23 0 0	1 0 0	July, 1860
119	Great Work (tin), Germoe	100 0 0	110		221 10 0	7 10 0	Feb. 1857
200	Herward United (lead), Flintshire	40 0 0	10		3 0 0	1 10 0	July, 1860
6000	Hingston Down Con. (cop.), Cals. [S.E.]	4 19 0	3⅜	3¾ 4	2 16 0	0 2 6	Nov. 1856
5000	Kelly Bray (lead, copper), Callington	4 8 0	21s.		0 6 0	0 2 0	Feb. 1860
20	Laxey Mining Company, Isle of Man	100 0 0	1200		1420 0 0	50 0 0	June, 1857
470	Newtownards Mining Co., Co. Down	50 0 0	35		56 0 0	1 0 0	Sept. 1858
700	North Roskear (copper), Camborne	18 0 0	18	16	157 0 0	4 0 0	Sept. 1853
512	Rosewarne United (cop., tin), Gwinear	19 6 4	22	20	33 10 0	1 0 0	Sept. 1860
12000	Sortridge Con. (cop.), Whitchurch [S.E.]	0 16 0	14s.	12s. 13s.	0 10 0	0 2 6	July, 1857
128	South Crinnis (copper), St. Austell	19 0 0	285		60 0 0	20 0 0	June, 1855
20000	St. Day United (tin and cop.), Redruth	2 7 0	¾	¾	0 3 6	0 1 0	Feb. 1858
6000	Tolvadden (copper), Marazion	0 6 0	2		0 13 6	0 3 0	Mar. 1860
20000	Vale of Towy (lead), Carmarthen [S.E.]	0 13 6	¼		0 5 9	0 1 0	July, 1858
1024	West Providence (tin), St. Erth	16 15 0	3¾		33 1 9	0 10 0	April, 1857
240	Wheal Bal (tin), St. Just	15 0 0	16		4 0 0	1 0 0	Feb. 1859
4096	Wheal Edward (cop.), Calstock [S.E.]	7 7 6	3¼	3¼ 3⅛	0 5 0	0 5 0	Mar. 1858
1024	Wheal Gryll's (tin), Perranuthnoe	2 4 0	16½		1 12 0	0 7 6	Nov. 1859
5000	Wheal Kitty (tin), St. Agnes	4 16 6	1		0 18 6	0 2 0	July, 1860
345	Wheal Lovel (tin), Wendron	33 0 0	7		31 0 0	1 0 0	Sept. 1856
1024	Wheal Margery (tin, copper)	15 13 0	9		0 10 0	0 10 0	May, 1860
396	Wheal Seton (tin, copper), Camborne	58 10 0	121	125 130	131 15 0	1 10 0	Dec. 1859
1040	Wh. Trelawny (sil.-ld.), Liskeard [S.E.]	5 17 0	17	16½ 17	43 15 0	1 0 0	Oct. 1860
1022	Wheal Tremayne (tin, cop.), Gwinear	13 2 6	5		10 2 6	0 7 6	Jan. 1854

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
2464	Burra Burra (cop.), South Australia	5 0 0	116		265 0 0	5 0 0	June, 1861
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	36½	36 37	97 12 0	1 0 0	July, 1861
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	8		6 8 0	0 5 0	Jan. 1861
15000	East Indian Coal, Calcutta [L.]	10 0 0	10		7½ per cent.		Yearly.
70000	English and Australian [S.E.]	5 0 0	3⅛		1 5 0	0 2 6	Aug. 1861
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	23½	23 24	18 5 0	1 0 0	June, 1861
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	2⅛	1⅞ 2⅛	0 8 0	0 2 0	June, 1861
15000	Linares (ld.), Pozo Ancho, Spain [S.E.]	3 0 0	8	7 8	8 6 2	0 3 4	July, 1861
10000	Lusitanian (of Portugal) [S.E.]	2 0 0	2¼		0 18 9	0 1 6	Aug. 1861
103815	Mariquita and New Granada [S.E.]	1 0 0	⅜		0 9 6	0 1 6	July, 1859
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1⅜	1¼ 1⅜	0 4 0	0 1 0	July, 1861
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	51½	48 49	43 5 0	2 10 0	June, 1861
20000	West Canada Mining Company [L.]	1 0 0	1¼		0 2 0	0 2 0	June, 1860

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
10000	Alten and Quænangen Uni. (cop.) [L. £5]	4 10 0	3		4 5 0	0 15 0	Nov. 1853
10000	Gt. Barrier Land, Min., &c., N. Ze. [L. £5]	4 10 0	3⅛		15 per cent.		May, 1859
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	4		1 0 0	1 0 0	June, 1855
43174	Unit. Mexican (sil.), Mexico [S.E.] Av.	28 5 0	8¾	7¾ 8¼	1 16 6	0 4 0	Feb. 1853

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 7 6	1⅛	¾ 1	Sept. 1858
75000	Bon Accord, South Australia (copper) [L. £1] [S.E.]	0 17 6	⅛		Dec. 1860
6000	Central American (silver) [L.]	5 0 0	12		Feb. 1859
17000	Central Italian (copper) [7000 £2 paid]	0 6 0	—		Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	0 17 6	⅜		Jan. 1861
10000	Copiapo Smelting [L.], Chili	10 0 0	8½		Fully paid.
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	1¼	1 1¼	Fully paid.
25000	East del Rey, Brazil [L. £3]	1 0 0	1⅜	1⅛ 1⅜	Sept. 1861
30000	East Kongsberg Native Silver Mining Co. of Norway [L. £5]	1 0 0	¾		April, 1861
30000	Ellersile and Bardowie, Jamaica	0 18 0	1⅛		July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0	—		Fully paid.
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	2¼	1¾ 2¼	Fully paid.
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 0 0	1⅛	1⅛ 1⅜	
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—		Fully paid.
50000	Imperial Thessalian (lead, &c.), Thessaly [L. £2]	0 10 0	¾		June, 1860
30000	Lagunazo (sulphur, copper), Portugal [L. £1]	0 12 6	½		Nov. 1861
60000	New Granada (gold), South America [S.E.]	1 0 0	¼		Fully paid.
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	1		Nov. 1858
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	0 15 0	⅝		Nov. 1861
15000	Pachuca Silver Mining Company, Mexico [L. £1]	0 10 0	—		April, 1861
80000	Scottish Australian Mining Company [L. £1]	0 10 0	1	⅞ 1⅛	Nov. 1858
15000	South Europe Mining Company, Spain [L. £5]	3 0 0	—		May, 1860
50000	St. John's United (copper, lead), Newfoundland [L.]	1 0 0	⅝		Fully paid.
45000	Victor Emanuel, Italy [L.] [20,000 Pref. Shares, 5s. pd., 25,000 £1 pd.]		1⅛		
1000	Western Africa Malachite (copper) [L.]	110 0 0	—		Oct. 1859
12000	Wheal Ellen, South Australia [L. £5]	4 0 0	4¼		July, 1861
35425	Wheal Jamaica (copper)	1 0 0	18s.		Fully paid.
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	⅝	10s. 11s.	Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4825	Abbey Consols (ld.) Cardigan.	2 7 0	1		Nov. 1860
1000	Allt-y-Crib (lead) [L. £5]	2 8 6	2		June, 1861
10000	Angarrack (copper), Phillack.	1 1 6	1⅛		June, 1859
1000	Ashburton United (cop., tin)	14 0 0	14¾		Oct. 1861
10000	Bampfylde (copper), Devon	0 15 0	4		Aug. 1860
4000	Bedford Consols (copper)	2 0 6	3s.		Oct. 1861
2000	Berehaven (copper), Ireland	1 0 0	1¼		
6000	Bickerton (copper) [L.]	1 0 0	3¼		Sept. 1861
7500	Bickleigh Vale Phœnix [L.]	2 0 0	2¼		Fully paid.
200	Billins (lead) [L. £30]	20 0 0	20	19 20	Feb. 1861
1248	Boscaswell (tin), Penzance	6 5 0	8		Dec. 1860
2280	Boscundle (tin, cp.), St. Austell	6 15 0	4		Sept. 1860
160	Bosorne & Bollowall, St. Just	6 5 0	10		Dec. 1860
5000	Bosworthan (tin), Sancreed	1 0 0	1½		June, 1860
5000	Bottle Hill (tin), Plympton	1 0 0	14s.	12s. 14s.	
12000	Brea Con. (tin), St. Ives [L. 30s.]	1 3 0	22s.		Oct. 1861
5000	Bronfloyd (ld.), Cardigan. [L.]	2 4 0	4¼		Nov. 1861
112	Bron-Haulog (ld.), Denbighsh.	20 0 0	20		No call.
5120	Brynambor (ld.), Cardigansh.	1 5 0	2½		Oct. 1861
500	Bryn Gwiog (lead), Flint	5 0 0	27	26 28	Oct. 1861
2000	Eryntail, Llanidloes, Montgo.	5 7 0	4		Aug. 1861
5850	Budnick Consols (tin), Perran	1 8 0	⅜		Oct. 1861
6380	Buller and Basset Unit. (cop.)	3 7 6	1⅜		Oct. 1861
2448	Bwlch (sil.-ld), Cardiganshire	4 9 0	2¾		Nov. 1860
4096	Calstock Consols (copper)	5 10 0	⅛		Dec. 1860
915	Calvadnack, Wendron	18 5 0	7½	7 7½	Mar. 1861
1000	Camborne Consols (copper)	16 10 0	8		June, 1861
4600	Camborne Vean & Wh. Francis	7 17 4	2½	2 2¼	Oct. 1861
914	Caradon Cons. (cop.), St. Cleer	22 7 0	12½		Sept. 1861
10000	Cardigan Consols [L. £5]	7 0 0	9		Mar. 1861
916	Cargoll (silver-lead), Newlyn	15 5 7	15		Sept. 1860
6000	Carn Camborne	0 7 0	1		May, 1861
4370	Carnewas (ld., cop.), Mawgan	1 3 0	⅞	15s. 16s.	June, 1861
3000	Carn Vivian (tin, cop., lead)	2 1 6	2⅛		Nov. 1861
7000	Carrack Dews	2 16 0	1		April, 1861
1056	Carvannall (cop.), Gwennap	21 11 7	3		Dec. 1860
20000	Carysfort (cop., ld.) [L. £2½]	0 10 0	8s.		Mar. 1859
10000	Cast'eward, Ireland [L. £1]	0 15 0	15s6d.		Mar. 1861
2500	Cefn Cilcen (lead), Flintshire.	1 5 0	1		Sept. 1860
4000	Clara United (sil.-ld.) [L. £3]	2 5 0	1¾		Oct. 1861
984	Clijah & Wentworth (tin, cp.)	28 0 6	2		May, 1861
6000	Clinton and Edgecombe United	1 0 0	1⅛		Oct. 1860
3135	Co:d Mawr ?ool (lead) [L.]	4 7 0	4		June, 1861
2560	Co'omendy (lead), near Mold.	1 0 0	21s.		No call.
5000	Cornubia (tin), Roche	1 0 0	1¼		Oct. 1861
10000	Craigton (ld.) [L. £1], Kirkcud.	0 10 0	¾		June, 1859
876	Crane (copper), Camborne	11 0 0	8		Nov. 1861
30000	Craven Moor (ld.), Yorkshire.	0 10 0	4s.		No call.
12000	Crelake (cop.), Tavistock	—	3		No call.
8000	Crookhaven (cop.) [L. £2½]	1 0 0	6s. 6d.		Mar. 1861
2000	Crowlwm (lead), Llanidloes	1 10 0	⅞		No call.
6000	Crowndale (cop.), Tavistock	0 11 6	3		Nov. 1858
6000	Cuddra (cop., tin), St. Austell	2 9 0	2⅜		Nov. 1861
21000	Dale, North Staffordshire [L.]	1 0 0	1		Fully paid.
4817	Devon and Courtenay (cop.)	1 11 0	11s.		Oct. 1861
5000	Devon Great Wheal Ellen	2 0 0	—		Mar. 1861
12000	Dev. New Copper Co. [L. £2]	—	2		
12000	Devon Union (copper) [L. £1]	0 15 0	¾		Oct. 1861
4566	Devon Wheal Buller (copper)	3 11 6	¾		Aug. 1861
1000	Durlo (tin), Lelant	6 12 0	7½		Mar. 1861
2000	Dolcoath United [L. £5]	1 0 0	2¾		June, 1860
3000	Dulta (tin) [L. £1]	—	1		
244	Eaglebrook (lead.), Cardigan	77 10 0	16		Oct. 1861
600	East Abraham, Crowan	7 10 0	7½		Oct. 1861
4096	East Alfred Consols (copper)	3 16 8	1¾	1½ 1⅝	Sept. 1861
3000	E. Beam (tin), St. Aus. [L. £2]	0 15 0	2½		Nov. 1861
6000	E. Bertha Con. (cop.), Tavist.	0 17 0	1⅛		July, 1861
6000	East Budnick and Mount	0 10 0	½	¼ ⅜	Jan. 1861
6000	East Carn Brea (cop.) Redruth	3 11 0	9½	9⅜ 9⅞	Oct. 1861
6400	East Crinnis and South Par	2 11 6	2		Sept. 1861
6000	East Damsel	1 10 0	1¾		
4000	East Devon Gt. Consols (cop.)	0 13 6	2	1⅞ 2⅛	Sept. 1861
4000	East Fowey (cop.) [L. 50s.]	1 5 0	1½		June, 1861
6000	E. Grenville (cop.), Camborne	0 19 6	33s.	1½ 1⅝	Oct. 1861
4000	E. Gunnis Lake & S. Bedf. (cp.)	6 10 6	¾	½ ¾	Oct. 1861
12000	East Mona (cop., &c.) [L. £1]	0 5 0	—		May, 1861
8000	East Polberro, St. Agnes	0 5 0	½		May, 1861
4096	E. Providence (tin), Uny Lel.	2 3 5	2	2 2¼	June, 1861
6000	E. Releath (tin, cop.), Wendron	0 1 0	1		Aug. 1860
5000	E. Rosewarne (cp., tin), Gwin.	2 12 0	1¼	1¼	Sept. 1861
1122	East Seton, Camborne	0 3 0	—		Oct. 1861
256	East Tolgus (copper), Redruth	63 0 0	30		Oct. 1861
1000	E. Trefusis (cop.), Gwennap.	7 14 7	1		Sept. 1861
1024	E. Treskerby (cop.), Redruth.	3 10 0	2		July, 1861
1190	E. Wheal Agar (cop.), St. Cleer	8 7 0	2¾		July, 1861
6000	E. Wh. Ellen (sil.-ld.), St. Ive	0 1 0	⅜		July, 1860
4000	E. Wh. Russell, Tavis. [S.E.]	7 4 0	3¼	2¾ 3	Nov. 1859
5700	Exmouth (sil.-ld.), Christow.	5 19 0	1¼		Nov. 1861
6000	Fowey and Par Uni., St. Blazey	0 10 0	1⅛		Nov. 1860
5000	Fursdon (cp.), Okeham. [L. 30s.]	1 7 6	2½		Oct. 1861
6000	Furze Hill Wood Cons., Buckl.	0 5 0	1½		June, 1861
114	Garden (tin), Morvah	22 0 0	24		June, 1861
1000	Garreg (lead), Flint	4 10 6	⅛		Nov. 1861
4000	Gawton (copper), Tavistock	1 13 0	⅛	½	Oct. 1861
1024	Gelliffowller (ld.), Holywell	0 2 6	5s. 6d.		June, 1861
6000	Gernick (copper), Crowan	0 11 0	⅛		Sept. 1861
4892	Goginan (silv.-ld.) [1900 £12½, 2992 £1]		2		July, 1860
6144	Gonamena (copper), St. Cleer.	2 15 0	1½		Dec. 1861
2000	Goonzion, St. Neot	0 2 6	4s.		Feb. 1861
5000	Great Brigan	3 7 0	2	2⅛	June, 1861
4096	Great Caradon (cop.), St. Ive.	1 11 0	⅝		Nov. 1861
6000	Gt. Crinnis (cop.), St. Austell	2 9 0	1¼	1¼	Oct. 1861
6000	Great North Downs	1 0 0	—	1¼	Dec. 1861
10104	Great Onslow Cons., Camelfd.	3 10 9	¾		Dec. 1860
6000	Gt. Retallack (sil.-ld., blende)	1 9 0	18s.	15s. 17s.	Oct. 1861
47000	Gt. Tregune Con. [40,000 £⅛, 7000 £¼ pd.]		—		
10000	Great Treveddoe (copper)	0 14 0	⅝		Aug. 1861
6000	Gt. Tywarnhaile (cp.), [L. £5]	3 0 0	3		Jan. 1861
5120	Great Wheal Alfred [S.E.]	14 1 2	6s.		July, 1861
3730	Great Wheal Baddern (tin)	5 13 0	¾		Oct. 1861
6000	Gt. Wh. Busy (cop., tin), Ken.	13 0 0	5½		Mar. 1861
12500	Great Wh. Martha (cop.) [L.]	1 0 0	26s.		Fully paid.
10240	Gunnis Lake (Clitters' Adit).	0 2 0	3¼		Mar. 1861
5000	Gurlyn (cop., tin), St. Erth	1 14 3	⅜		Oct. 1861
8634	Gwydyr Park Con., Llanrwst	0 15 6	9s.		Oct. 1861
6400	Harwood (ld.), Durham [L. £1]	0 3 6	⅜		July, 1861
7219	Hawkmoor (tin, cop.) Calstock	2 19 6	¼		Oct. 1861
10000	Holmbush [5000 £5 2s. pd., 5000 5s. pd.]		—		Sept. 1860
6000	Huckworthy Bridge (copper).	0 19 6	¼		Oct. 1861
40	Imperial Silver-Lead, Dolgelly	25 0 0	30		Mar. 1861
6000	Keswick (lead), Portinscale	5 0 0	1⅛		July, 1861
6000	Lady Bertha (cop.) [S.E.]	1 12 6	16s.	13s. 15s.	July, 1861
3000	Lady Eliza (ld.), Carm. [L. £3]	2 8 0	¾		June, 1861
1019	Leeds & St. Aubyn (tin, cop.)	15 12 3	4		Mar. 1861
963	Lelant Cons. (tin), Uny Lelant	32 10 0	2½		Mar. 1861
1000	Llanfair (silver-lead) [L.]	6 0 0	6		Fully paid.
2000	Llywernog (ld.), Card. [L. £3]	1 0 0	1⅜		Sept. 1861
500	Long Rake (lead), Flint	11 0 0	14½	14 14½	Nov. 1861
2000	Lower Park Denbighshire [L.]	4 0 0	18s.		
6000	Maudlin Mines	—	2½		
4540	Merllyn (lead), Flint	3 12 6	⅞		Nov. 1861
22000	Merryfield (lead) [L.]	0 12 0	4s.		May, 1860
3400	Michell (lead), Flint	0 2 6	9s.		Nov. 1861
16000	Mold (lead), Flints. [L. £1]	0 17 0	⅞		Jan. 1860
6411	Molland (cop.), S. Moulton	2 8 0	2s.		July, 1861
5000	Nance Valley	0 5 0	1		Aug. 1860
1024	Nangiles (tin, copper), Kea	3 0 0	3½		Jan. 1861
5000	Nanteos and Penrhiw [L. £4]	3 6 0	—		June, 1861
2400	Nant-y-Iago (ld.), Merioneth	3 0 0	2½		Mar. 1861
250	Nanty Mines (ld.), Montgom.	20 0 0	—		Fully paid.
6400	Nether Heath (lead), Dufton	0 15 6	⅛		April, 1860
6400	N. Crow Hill (ld.), St. Stephen	2 0 6	1¼		Oct. 1861
4540	New E. Wh. Russell, Tavistock	0 4 0	½		Aug. 1861
6000	New Treleigh Cons., Redruth	1 11 0	1½	1¼ 1⅜	Oct. 1861
2000	New Wheal Clifford (copper).	6 6 0	⅛		Mar. 1861
6144	New Wheal Frances, Crowan.	0 18 6	⅜		Nov. 1861
1024	New Wheal Hender, Crowan.	2 10 0	3		June, 1861
400	New Wh. Seton (cop.), Camb.	13 10 0	47½		May, 1861
2300	New Wh. Vor & E. Wh. Metal	9 0 0	—		July, 1861
2500	N. Wh. Vaddon (tin), Marazion	1 2 6	1¼		Nov. 1861
6000	Nidderdale (ld.), Yorks. [L. £1]	0 15 0	¾		Jan. 1861
90	N. Budnick (tin, ld.), Perranz.	1 10 0	40		No call.
4500	No. Budnick and West Mount	0 5 0	⅜		
1024	North Buller (cop.), Redruth.	21 7 6	3½	3½	Nov. 1861
6000	Nor. Clifford (cop.), Gwennap	0 5 0	⅝		Nov. 1860
20000	North Devon (sil.-ld.) [L. £1]	0 8 0	11s.		Oct. 1861
5000	N. Dolcoath (cop.), Camborne	2 4 6	¾		Aug. 1861
1000	North Fortescue	1 14 0	2		Oct. 1861
2500	North Frances, (cop.) [S.E.].	13 5 0	3½		June, 1861
6000	N. Hafod (sil.-ld.), Car. [L. £2]	0 10 0	—		Sept. 1861
8000	N. Hallenbeagle (tin, cp.) [L.]	0 12 6	1½		Oct. 1861
2000	North Jane (tin, silver-lead).	3 5 0	2¾		Sept. 1861
6000	North Kit Hill (tin, copper)	0 2 6	⅛		Sept. 1861
6000	N. Laxey (ld.) I. of Man [3600 £2, 2400 £1¾]		1¼		June, 1861
2000	N. Levant (tin, cop.), St. Just	6 16 6	6		Aug. 1861
10000	North Minera (lead) [L.]	1 0 0	23s.	21s. 23s.	April, 1860
5000	N. Nant-y-Mwyn (ld.), [L. 10s.]	0 5 0	6s.		Jan. 1861
6000	North Porthilly (silv.-lead)	—	¼		Sept. 1861
4096	North Rosewarne, Gwinear	0 4 6	4s. 6d.		Dec. 1860
5000	N. Trelother (sil., cp.), Padstow	1 0 0	1¼		Feb. 1860
848	N. Treskerby (cop.), St. Agnes	10 3 9	24	23 25	Dec. 1860
6000	N. Wh. Basset (cop., tin) [S.E.]	2 0 0	3¾	2¾ 3	Oct. 1861
1024	North Wheal Busy (cop., &c.)	8 17 7	4		Sept. 1861
5610	North Wheal Crofty [S.E.]	1 19 0	2⅛	1⅞ 2	Oct. 1861
6144	N. Wh. Robert, Samp. Spiney	2 12 11	1	19s. 21s.	July, 1861
4108	North Wheal Trelawny (lead)	3 2 6	¼		Oct. 1861
5900	North Wheal Vor (tin), Breage	3 0 0	—		June, 1861
4000	N. Wrey (ld.), St. Ive [L. £2]	0 14 6	1⅛		Oct. 1861
4096	Okel Tor (lead), Calstock	5 6 6	2½		Sept. 1861
600	Old Tolgus United (cop.) Redr.	44 18 0	11	9 10	Nov. 1861
800	Pant-y-Buarth (ld.) [L. £10]	6 0 0	20		Mar. 1861
200	Pant-y-Pwydu (ld.), Flintshire	10 0 0	20		Sept. 1860
8465	Pedn-an-drea United (tin)	3 7 6	¾		Oct. 1861
3200	Pelyn Wood (cop.), Lostwithiel	3 7 6	⅛		Sept. 1861
12000	Percraig United (ld.) [L. £1]	0 7 6	—		Oct. 1861
5000	Pendeen Consols, St. Just	3 12 0	5	4½ 5	Aug. 1860
1000	Pengenna (ld., sil.), St. Kew	4 10 0	6¾		May, 1861
800	Penhale Moor (tin, copper)	4 5 0	5		Sept. 1861
5000	Penhalls (tin), St. Ann's	1 4 0	5⅛		Jan. 1860
6000	Penrait (lead), Merioneth	2 0 0	2¼		
200	Pentre Lygan (lead) [L. £30]	20 0 0	15½		Mar. 1861
4000	Polgear Mines, Wendron	1 3 0	⅛	⅜ ½	Nov. 1861
6000	Polhigey Moor (tin), Wendron	1 5 0	1¼		Sept. 1861
944	Praed Consols (tin), Lelant	3 13 3	2¼		Sept. 1861
6400	Prideaux Wood (tin, cop.)	3 12 0	16s.		May, 1861
512	Polbreen (tin), St. Agnes	8 0 0	8		Aug. 1860
6000	Prosper Uni. (tin, cp.), St. Hilary	3 0 0	2	1¾ 2	Oct. 1861
11789	Redmoor (cop., tin), Callington	0 8 6	¼	4s. 5s.	Oct. 1861
6000	Releath (tin, cop.), Crowan	1 0 0	2¼		Oct. 1860
2500	Rhoswydol and Bacheiddon	12 5 0	7⅛		Oct. 1861
3000	Rhyscog (silver-lead) [L. £5]	1 0 0	1		Mar. 1861
20000	Ribden [L.] [15000 £1, 5000 £½ pd.]		—		
10000	River Tamar Copper [L.]	1 0 0	1		Fully paid.
6000	Rosewall Hill & Ransom Utd.	2 16 0	1¾	2¾ 3	Mar. 1861
4096	Rosewarne Consols (copper)	3 7 6	2⅛	2¼ 2½	Nov. 1861
5000	Round Hill (cop., ld.), Salop	2 5 6	⅝		Mar. 1858
2000	Scorrier Con. (tin, cp.), St. Agnes	3 0 0	1⅜		Nov. 1861
10000	Sigford Con. (cop., tin) [L. £1]	0 13 0	1⅜		July, 1861
5000	Silver Bank (silv.-lead) [L.]	1 0 0	¾		Fully paid.
100	Silver Rake (lead) [L. £2½]	5 0 0	9		Jan. 1861
15000	Silv. Vein, St. Winnow [L. £1]	0 7 6	2⅛	2⅛	Nov. 1861
6000	Sm'th's Wood (tin, cp.) [L. £2]	1 6 0	3¼		Oct. 1861
512	South Basset (cop.), Gwennap	12 0 8	13		Aug. 1861
100	South Bryn Gwiog	5 0 0	24		
6400	So. Buller & W. Penstruthal.	0 12 0	1⅛		May, 1860
4096	S. Caradon Wh. Hooper (cop.)	2 12 6	⅞		Oct. 1861
6000	So. Carn Brea (cop.) [S.E.]	5 7 6	4½	4 4¼	Oct. 1861
6138	S. Condurrow (tin, cp.), Camb.	2 1 0	11s.		Sept. 1861
2283	Sou. Crenver (cop.), Crowan.	9 13 6	3¼		Oct. 1860
6000	South Darren (ld.) [L. £3¼]	2 10 0	1⅛		Nov. 1861
65000	S. Dev. Iron & Gen. Min. [L. £1] [S.E.]		⅞		Fully paid.
1024	South Ding Dong, Gulval	0 10 0	¾		Aug. 1860
6000	S. Dolcoath & Carnarthen Con.	2 5 0	4		Oct. 1861
6000	South Gernick (tin), Crowan.	0 2 6	⅜		Oct. 1860
1000	South C[illegible]rland	6 10 0	5	5 5¼	July, 1861
6000	South Lady Bertha (copper)	1 3 0	⅝	⅝ ⅞	Oct. 1861
4000	South Minera [L. £5¼]	2 2 0	4		July, 1861
5537	So. Phœnix (cop.) Linkin.	4 10 0	1¾		Jan. 1859
1024	South Tresavean, Gwennap	2 18 9	1⅛		Oct. 1861
4096	S. Wh. Betsy, Mary Tavy, Dv.	1 5 6	1		Sept. 1861
1105	So. Wh. Crofty (cop.), Illogan	3 8 10	4		Nov. 1861
1024	S. Wh. Ellen (cp.), St. Agnes	9 18 2	1		Aug. 1861
1000	South Wh. Kitty (tin), Lelant	1 10 0	1¾		Oct. 1861
1024	S. Wh. Lovell (tin), Wendron	1 4 6	2½		July, 1861
6000	S. Wh. Margaret (tin), Ludgvan	0 3 0	—		Aug. 1861
400	So. Wh. Seton (cop.), Camborne	25 13 0	8		Aug. 1861
794	Spearne Cons. (tin), St. Just.	6 7 0	3¼		Mar. 1860
970	St. Aubyn and Grylls (cp., tin)	7 14 6	2½		Aug. 1860
5208	St. Austell Consols (tin, &c.)	3 16 0	1¼		Dec. 1858
1024	St. Ives Wheal Allen (tin)	6 0 0	6		July, 1861
1000	Stencoose and Mawla (tin, cp.)	2 10 0	2		July, 1861
920	Stray Park (cop., tin) [S.E.]	27 19 0	34	31 32	Nov. 1861
5000	Tavy Con. (cop.), near Tavis.	5 12 6	1⅛		June, 1861
3000	Tees Side (ld.), Cumb. [L. £1]	0 13 0	⅛		Aug. 1861
6000	Tolcarne (cop.), Camborne	1 2 6	3¼	2¾ 3¼	Aug. 1861
2000	Treffry Consols	0 5 0	—		June, 1861
2000	Trefulack Uni. (tin), St. Enoder	3 5 0	3	4 4¼	Sept. 1861
5000	Treloweth (copper), St. Erth.	6 6 8	2¾	2¼ 2½	Oct. 1861
1024	Trencrom (tin), Uny Lelant	10 15 0	⅝		Sept. 1861
5000	Tresellyn and Scaddick Cons.	1 5 6	—		Mar. 1861
8000	Tretoil (copper, tin)	2 7 6	1⅛		Jan. 1861
5600	Trevenen and Tremenh?ere	5 13 0	2½		July, 1861
4096	Tre'eatha (sil.-ld.), Menhen.	4 11 6	⅛		Oct. 1861
2048	Treworlis, Wendron	3 6 4	2		Mar. 1859
4000	Trumpet Unit. (tin), Wendron	0 17 6	¼	⅝ ⅝	Oct. 1861
3000	Tyne Head (ld., cop.) [L. £1]	0 12 0	¾		Sept. 1860
400	Tynewydd (sil.-ld.), Cardigan.	0 5 0	—		July, 1861
1024	Tyringham Consols (tin)	1 10 0	2¾		Feb. 1860
5120	United Mines (cp., &c.), Tav.	4 14 6	1⅛		Sept. 1861
1250	Vale of Ffrith (lead) [L. £2]	0 5 0	1½		April, 1861
1000	Waenlas (ld.), Denbigh. [L. £10]	8 0 0	5		Aug. 1859
3000	Watermouth Gt. Sil.-Lead [L.]	5 0 0	6		Fully paid.
4000	Wentnor [L. £2½]	1 18 0	1⅞		Oct. 1861
1024	W. Alfred (copper), Phillack	36 16 5	—		Sept. 1859
20000	West Beam [L. £1]	0 2 6	¼		Aug. 1861
100	W. Bryn Gwiog (ld.) [L. £20]	8 0 0	12	10 12	Nov. 1861
1218	W. Condurrow (tin, cop.), Cam.	5 7 2	5		Oct. 1861
16	West Denbigh (ld.), Denbigh.	35 0 0	100		Oct. 1860
30000	W. Devon Con. (cop.), [L. £1]	0 10 0	½		June, 1861
4620	W. Great Work (tin), Germoe	0 9 6	11s.		Oct. 1861
25000	West Par Con. (cp.) St. Blazey	1 9 0	¼	3s. 5s.	Nov. 1861
32	West Penstruthal	250 0 0	350	400	
6000	W. Polmear (tin, cp.), St. Austell	0 10 0	6s.	5s. 7s.	Feb. 1861
1600	W. Rose Down (cop.), Caradon	3 0 0	11	10½ 11⅛	Aug. 1860
256	West Sharp Tor (cp.) Rillaton	134 0 0	22		Dec. 1861
5000	W. Snailbeach (lead) [L. £2]	1 0 0	1¼		July, 1860
4096	West South Caradon (copper)	1 16 6	1		Oct. 1861
1056	West Stray Park (cop.), Camb.	7 15 0	4¼	3¾ 4¼	April, 1861
5000	West Tolcarne (cop.), Crowan	1 12 6	⅝		Sept. 1861
512	West Tolgus (cop.), Redruth	22 0 0	—		Nov. 1861
1879	West Trevelyan (tin, copper)	9 4 6	2½		Dec. 1861
4000	West Wendron (tin), Wendron	0 18 0	13s.		Oct. 1861
512	West Wheal Frances, Illogan	65 5 0	13		April, 1861
10000	West Wheal Jane (tin, &c.)	2 18 6	¾		Oct. 1861
1024	West Wheal Lovell, Wendron.	2 0 0	1		July, 1861
3000	W. Wh. Margaret (tin), Uny Lel.	2 18 6	—		Nov. 1861
6000	Wheal Agar (copper), Illogan	3 6 0	4		July, 1861
2048	Wh. Agnes (sil.-ld.), St. Kew	—	2		No call.
1024	Wh. Anna (ld., blende), Perranz.	0 13 6	1¼		Oct. 1861
500	Wheal Anne (tin), St. Austell	1 11 0	1½		Nov. 1861
5000	Wheal Annie (cop.), Gwinear	0 15 0	¾		No call.
5990	Wh. Arthur (cop.), Calstock.	3 12 0	16s.	16s. 18s.	Sept. 1861
1000	Wheal Basset and Grylls (tin)	4 0 0	8½		Mar. 1861
18000	Wh. Concord (sil.-ld., cp.) [L. £1]	0 5 0	—		May, 1861
6000	Wheal Crebor (cop.), Tavistock	0 16 6	⅛		Oct. 1861
5120	Wheal Cupid (cop.), Redruth.	3 18 0	1¼		Oct. 1861
512	Wh. Damsel (cp., tin), Gwennap	25 3 6	15		Oct. 1861
4000	Wh. Emma (cp) Buckfastleigh	2 15 0	4		Nov. 1861
4096	Wheal Emma (tin), Breage	0 10 0	¾		Aug. 1860
6000	Wh. Grenville (copper) [S.E.]	7 9 0	34s.	1½ 1⅝	Nov. 1861
5120	Wheal Harriett, Camborne	4 2 0	1¼		Sept. 1861
6000	Wh. Harris (ld., cop.), Lifton	0 10 6	1		Feb. 1861
1024	Wheal Hearle, St. Just	9 2 8	25	20 25	Sept. 1861
2048	Wheal Hope (sil.-ld.), Perran	0 15 6	1¼		[illegible] 1861
10000	Wh. Lopes (tin, zinc) [L. £1]	0 10 0	—		[illegible] 1860
6000	Wheal Louisa (cop.), Redruth.	0 10 0	1¼		Sept. 1861
5640	Wh. Mary Emma (tin) Lydford	0 10 3	—		April, 1861
6000	Wheal Moyle, Gwennap	2 4 0	2⅜	2¼ 2½	Aug. 1861
6000	Wh. Norris (tin, cp.), St. Cleer	1 10 0	2½	2⅛ 2½	Oct. 1861
256	Wheal Polmear, St. Austell	17 10 0	220		
2315	Wh. Pollard (cop.), St. Neot's	2 10 0	½		Oct. 1861
1000	Wh. Prosper (cp., tin), Breage	9 0 0	3		Aug. 1861
1879	Wheal Prospidnick	1 19 0	5¼	4¾ 5¼	Nov. 1861
240	Wh. Reeth (tin), Uny Lelant	77 10 0	30		Sept. 1861
600	Wheal Rose (ld.), St. Columb	1 0 0	6		No call.
1024	Wh. Sicily (sil.-ld.), Broadoak	3 10 0	3		Sept. 1861
4096	Wheal Sidney (tin), Plympton	3 9 1	1¾		July, 1861
2048	Wh. Sithney & Carnmeal Uni.	6 0 0	2½		Nov. 1861
1024	Wheal St. Andrew (copper)	5 0 0	5		Jan. 1860
512	Wheal Trannack, Sithney	2 10 0	—		June, 1861
512	Wh. Trefusis (cop.) Gwennap.	26 5 0	3		Aug. 1859
6000	Wheal Union (cop.), Redruth	3 4 0	2¾	2 2¼	Aug. 1861
6000	Wh. Unity (cop., tin), Gwinear	10 18 0	16s.	14s. 15s.	Nov. 1861
4096	Wh. Uny (tin, cop.), Redruth	8 6 6	4⅞	4½ 4¾	Sept. 1861
1024	Wheal Vyvyan (copper)	0 10 0	—		Dec. 1860
6000	Wheal Welcome (tin, copper)	1 0 0	4½		April, 1859
6400	Whitford (lead), Holywell	10 16 6	—		May, 1860
5000	Willow Bank (lead) [L. £2]	1 14 0	4s.		April, 1861
1024	Worvas Downs (tin), Lelant	4 15 0	5		Sept. 1861
3097	Yarner (copper), Devon	2 4 6	2		Oct. 1861

SLATE QUARRIES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
8800	British Slate, Carnarvon. [L.]	1 0 0	—	1⅛ 1¼	Nov. 1861
10000	Cricceth, Carnarvon [L. £3]	1 10 0	1½		Mar. 1861
20000	Festiniog Slate Quarry [L. £5]	—	—		
6000	Glan-y-Pwll, Merion. [L. £5]	1 0 0	1¼	1 1¼	Aug. 1861
10000	Great Moelwyn Slate [L. £5]	2 0 0	1¼	1 1½	Sept. 1861
4000	Wiveliscombe Slate	—	—		
600	Llangollen Slate and Slab	—	—		
10000	Lower Taldrws [L. £2½]	1 10 0	1¼	¾ 1¼	Oct. 1861
6000	Slate Mountain, Merio. [L. £5]	2 0 0	—		Sept. 1861

*** Those mines with [S. E.] appended have been admitted on the Stock Exchange. Those mines with [L.] appended have been incorporated with Limited Liability.

*** Our object being to make the Share List correct, we earnestly call upon all who have the power, to aid us, by forwarding any alterations or correction which may, from time to time, come under their notice. To shareholders, as well as those officially connected with the mines, we appeal for information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet ready attention.

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